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ABSTRACT

This report offers information from the Planning and Budgeting Committee (PBC) of the Israeli Council for Higher Education for the 1990-91 academic year. The first of the report's 10 sections describes the recent work of the Planning and Budgeting Committee, its role, relations with other bodies, and status. A second section offers general information on the higher education system. A third section discusses planning, new units and information in the form of statistics and indicators and the fourth section presents the budget for the PBC, which contains units on allocations, the ordinary budget, university debts, wages, and development. The fifth section covers development of academic infrastructure and promotion of research and scientific excellence through various fellowships, scholarships, and other allocations. Section 6 reports on funds offered through various institutional collaborations for the encouragement of research in special subjects. Section 7 treats inter-university cooperation in computers, libraries, desert research, and other special projects. Section 8 covers student support in tutorial projects and student loans. Section 9 contains data on other activities and allocation such as those involving foreign students, regional colleges, pre-academic preparatory program, special programs in electronics and peripheral hospitals. A final section looks at relations between the PBC and the government and the Knesset. Ten appendixes contain additional tables and figures. (JB)

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THE ISRAEL COUNCIL FOR HIGHER EDUCATION

THE PLANNING AND BUDGETING COMMITTEE

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Annual Report No. 18
Academic Year 1990/91

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THE PLANNING AND BUDGETING COMMITTEE

Annual Report No. 18

Academic Year 1990/91

Editor: Ricky Mandelzweig

English version translated and edited by Yael Atiyah

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FOREWORD BY THE CHAIRMAN
OF THE PLANNING AND BUDGETING COMMITTEE (PBC)

Expansion and the absorption of immigration distinguished the Israeli higher education system once again in the 1990/91 academic year. The universities began to admit large numbers of new immigrant students this year, while in the previous year most of them still attended special preparatory courses prior to regular university studies.

The growth in the number of students in the higher education system as a whole and in each individual institution was in accordance with the projections on which the PBC based its planning. The number of students in the system increased by over 3,500 from 1989/90 to 1990/91; a third of these new students were new immigrants from the Soviet Union. A phenomenon that is worthy of note is the increase of 6% in the number of undergraduate students in the natural sciences and engineering, after five years with no growth in these fields.

The higher education system absorbed not only new immigrant students, but also new immigrant scientists - in 1990/91 almost a hundred joined the staffs of the institutions of higher education in tenure-track positions. Twenty four of these were awarded Guastella Fellowships by the Rashi Foundation. A further seven hundred new immigrant scientists were employed by the institutions of higher education in temporary research positions supported by the Ministry of Immigrant Absorption, according to PBC guidelines on the number of scientists in each institution.

As planned, most of the new students were admitted to the existing institutions. It is, however, clear that the capacity of the existing system is limited and maximum capacity will be reached in the foreseeable future. Planning of the higher education system, which is one of the primary functions of the PBC and the Council for Higher Education, now has utmost importance. Various proposals for the expansion of the system were examined during the year and the solution that seems best, according to the PBC, is expansion in two stages. In the first stage the existing institutions will absorb most of the growth, while in the second stage, which will be implemented on a wide scale in two or three years, the system will be expanded by the addition of academic colleges that will award only the bachelor's degree and will be either general in nature or limited to specific fields. The first stage of the expansion is already underway and is being carried out by each institution according to its own judgment and policy, within

the overall plan. Planning efforts now center on the second stage of the expansion. The Council for Higher Education appointed a committee to examine the possibilities for expansion and diversification of undergraduate studies in Israel. One of the committee's recommendations, which was adopted by the Council, called for the award of a new type of bachelor's degree, "Bachelor of Technology", for studies in engineering and technology. Studies toward this new degree will facilitate the fulfillment of the growing demand for higher education in the fields of engineering and technology and the needs of the State in these fields.

Along with the expansion of the higher education system and the absorption of new immigrants into the system, the PBC continued to strive to improve the quality of higher education and research, according to a program whose aim is to return the system to a reasonable condition following a period of crises and cutbacks. This program should have been completed in the 1991/92 academic year. In practice, however, the funds that the Ministry of Finance provided were sufficient for the attainment, so far, of only two-thirds of the planned program; it will take a further two or three years to fully achieve the aims and scope of the program. This year, as part of the program, the PBC increased its earmarked allocations to the Israel Science Foundation and other research funds as well as its allocations for the purchase of books and periodicals. The PBC also decided to allocate funds for the renovation of teaching laboratories in the natural sciences, a subject that was neglected for many years due to lack of resources. An additional earmarked allocation, for post-doctoral fellowships in the universities, is intended to help improve the quality of research by augmenting existing research teams with young and experienced, albeit temporary, manpower. As part of the budget for the absorption of immigration, the PBC earmarked funds for fifty scholarships for new immigrant doctoral students, who are not yet able to work as teaching assistants during their first two years in the country.

I must note, with regret, that again this year certain politicians attempted to interfere, through legislative initiatives contrary to the spirit of the Council for Higher Education Law, with the planning of the higher education system. The planning process must take into consideration the delicate balance between the needs of the State for educated and skilled manpower, the resources that the State is willing to allocate to higher education, public demand for higher education and maintenance of academic quality. Short-sighted external intervention in planning may harm, and even cause serious long-term damage to, the higher education system, its students, and the State. A typical example is the iniative to amend the Council for Higher Education Law in order to provide for the opening of academic institutions that are "outside of

the State budget" (that is - financed from tuition fees without support from the State budget), the approval of which would ignore the needs of the State. This proposed amendment occupied the Council for Higher Education to a great extent during the year. As these lines are being written the matter has still not been resolved. Another example is the amendment of the "Bar Association Law". Above and beyond the potential damage to the prestige of the legal profession, this amendment, which makes it possible to receive a license to practice law without holding an academic degree, brought about a significant increase in the number of law students in Israel. While this quickly solved the problem of the demand for admission to law schools, it is a cause for great concern, since in the not-too-distant future the graduates of these non-academic law schools will find it difficult to obtain positions as legal interns or employment in their profession.

Now, more than ever before, it is obvious that the future of the State depends on the efficient utilization of its human resources. These resources must be nurtured and developed. We must, therefore, be even more diligent in our efforts to expand the higher education system and improve its quality, since this system is the central factor in the training of the intelligent and skilled manpower that the State will need in the future. The heart of the higher education and research system is its academic staff. We must ensure that the best young Israeli researchers and new immigrant researchers will join the system. For this purpose we must provide appropriate working conditions, which include work space and up-to-date laboratories, good libraries, research equipment, computers and budgets for research. The expansion of teaching and the improvement of research that are now required call for substantial increases of resources. I hope that the Government will indeed make these available to the system. Investment in human resources is the best investment that the State can make at any time, but especially now.

Upon the conclusion of my first year as chairman of the PBC, I would like to thank my predecessor, Prof. Jacob Ziv, for his contribution to the higher education system and the friendly and efficient manner in which he passed the chairmanship on to me. I owe personal thanks to the members of the Planning and Budgeting Committee and to its senior administrative staff, headed by the Director-General Mr. Gury Zilkha, and to all the employees of the Council for Higher Education for the advice, assistance and encouragement that they so generously gave me. My sincere thanks to the heads of the institutions of higher education and to the Minister of Finance, the Director of Budgets and other officials of the Ministry of Finance for the cooperation and understanding of the problems facing the higher education system. To the members of the Council for Higher Education, my gratitude for their dedicated work and

the support that they gave the committee at all times. I owe special thanks to the Deputy Chairman of the Council, Justice Moshe Landau, for the quiet but resolute manner in which he fought, tirelessly and dauntlessly, for the honor and status of the Council for Higher Education and the Planning and Budgeting Committee. To the Minister of Education and Culture, who is Chairman of the Council for Higher Education, my heartfelt appreciation for our pleasant work together and for his firm stand in support of higher education in the State of Israel.

Amnon Pazy

THE REPORT OF THE DIRECTOR-GENERAL

The 1990/91 academic year was characterized by an impressive expansion of the higher education system, expressed in the absorption of new immigrant students and an increase in the number of Israeli students. To facilitate this expansion, additional resources were made available and the universities' efficiency was improved by increasing the number of students at a lower marginal cost than average cost.

The increase in the number of students served as a firm basis for the growth of the academic staff and made it possible to hire new immigrant scientists.

The institutions of higher education learned, in 1990/91, how to take in larger numbers of students while maintaining academic standards. The additional resources that were put at their disposal, both from tuition fees and PBC allocations, were directed primarily to operating budgets. It is, however, already obvious that if the current trend of growth continues, additional resources for investment will be needed in order to create the infrastructure for further growth.

Not all of the students expected to enter the system will be able to study in the universities. New options for study will have to be developed; the PBC and the Council for Higher Education are already working on this problem. Planning new options for study involves rethinking such concepts as the level of instruction, terms of employment, budgets, and tuition fees in any new type of institution.

In 1990/91 a public committee determined, with the agreement of all parties concerned - the universities, students, the Ministry of Finance and the PBC - the level of tuition fees in institutions of higher education for the years 1991/92 - 1995/96. The level of tuition fees in real terms will be maintained and even increased slightly, by 7%, during this period. At the same time, financial assistance to students will be expanded, particularly "Perach", the tutorial project, in which a quarter of all undergraduate students already participate.

The development of the higher education system in Israel is one of the most important foundations for economic and social development. Investment in higher education bears both short term and long term profits and the effects of current growth will be felt in a number of years. Growth of investments in higher education means increased allocations from the Ministry of Finance, through the PBC, for the institutions of higher education. The PBC's long-range plan is already manifest in

the improvement of the institutions' economic strength. Further expansion of resources will, no doubt, bring about other needed improvements, particularly those necessary to strengthen the infrastructure for research in the universities. It should also be noted that in 1990/91 debts owed to banks by the universities continued to decline in real terms; special allocations were earmarked for this purpose.

These activities, and their continuation in the future, are possible through the efforts of the Council's skilled and dedicated staff.

These lines are being written in the middle of the 1991/92 academic year. In February 1992 Dr. Hadassa Horn passed away. She was a professional and devoted employee of the Council who laid the groundwork for the PBC's earmarked allocations based on academic excellence. May her memory be blessed.

Gury Zilkha

I

THE PLANNING AND BUDGETING COMMITTEE (PBC)

The Committee

Prof. Amnon Pazy - Chairman

Prof. Yadin Dudai

Mr. Itzhack Ish-Hurvitz

Prof. Ernest Krausz

Prof. Gur Ofer

Mr. Haim Stoessel

The Administration

Mr. Gury Zilkha	- Director-General
Mrs. Techia Karcz	- Secretary, Council for Higher Education and PBC
Miss Ruth Silberberg	- Deputy Director-General and i/c Development and Planning

1.1 The Terms of Reference of the Planning and Budgeting Committee

The terms of reference of the Planning and Budgeting Committee, as defined in Government Decision No. 666 of June 5, 1977, are as follows:

> The Government authorizes the establishment, as a subcommittee of the Council for Higher Education, of the Planning and Budgeting Committee, which the Minister of Education and Culture has appointed with the approval of the Council for Higher Education, in order to fulfill the following principal functions:
>
> 1. To be an independent body coming between the Government and the national institutions, on the one hand, and the institutions of higher education on the other, in all matters relating to allocations for higher education. The Government and the national institutions shall refrain from receiving requests or recommendations from the institutions of higher education themselves or from any other source. They shall also refrain from allocating funds to an institution of higher education other than on the recommendation of the Planning and Budgeting Committee.
>
> 2. To submit the ordinary and development budget proposals for higher education, taking into account the needs of society and the State, while safe-guarding academic freedom and assuring the advancement of research and learning.
>
> 3. To have exclusive authority to allocate to the institutions of higher education the global approved ordinary and development budgets.
>
> 4. To submit to the Government and to the Council for Higher Education plans for the development of higher education, including their financing.
>
> 5. To encourage efficiency in the institutions of higher education and coordination between them with a view to preventing superfluous duplication and bringing about economy.
>
> 6. To ensure that budgets are balanced and that there are no deviations from them.

7. To express its opinion to the Council for Higher Education before the Council reaches a decision on the opening of a new institution or a new unit having financial implications in an existing institution. The considered opinion of the PBC will include answers to the following questions:
   a. Is there a need for the new institution or for the new unit?
   b. What are the financial implications of opening the new institution or the new unit? The PBC will determine whether the opening of the new unit has or does not have financial implications.

1.2
The Status of the PBC and its Composition

The Planning and Budgeting Committee (PBC) of the Council for Higher Education was established in 1974, based on the model of the British University Grants Committee (UGC). The Government determined that the PBC would be "an independent body, coming between the Government and the national institutions, on the one hand, and the institutions of higher education on the other". The PBC's decisions in those matters delegated to it by the Government are completely independent.

The PBC is composed of six members: four professors from the university system, who may not hold any positions of administrative responsibility in their universities during their tenure as PBC members; and two public figures from the economic, business or industrial sectors of the economy. Two professors represent the humanities, social sciences, law or education and two the natural sciences, engineering, medicine or agriculture. This composition is intended to ensure an overall and balanced view of subjects brought before the committee.

The PBC's responsibility as trustee for higher education on behalf of the Government places it in opposition to the heads of the universities while, at the same time, obligating it to represent the interests of higher education in Government and Knesset (Parliament) discussions and decisions.

1.3
The Work of the PBC

1.3.1 Plenary Sessions

Between October 1990 and September 1991 the PBC met for 28 sessions.

1.3.2 Sub-committees of the PBC

The following sub-committees were active in 1990/91:

* The Selection Committee for the Yigal Allon Fellowships;
* The Committee for Fellowships for Outstanding Doctoral Candidates in the Humanities and Social Sciences;
* The Committee for Compucation;
* The Steering Committee for Super-Computers;
* The Steering Committee for the Inter-University Library Network;
* The Executive Committee of the Inter-University Center in Eilat;
* The External Review Committee for Life Science Subjects in the Universities;
* The Inter-Institution Academic Committee for the Ben-Gurion Research Center in Sede Boker;
* The Inter-Institution Academic Committee for the Institute for Desert Research;
* The Committee for Loans to Students;
* The Committee for Matching Allocations;
* The Committee for Budgetary Balance in the Institutions;
* The Service Committee for Loans to Council Employees.

Members of the PBC serve as chairpersons or members of most PBC sub-committees. Members are selected according to their qualifications or area of specialization from among the senior staffs of the universities and the private or public sectors of the economy. Committee members do not receive any remuneration for their services. PBC staff members serve as committee coordinators. PBC members also serve as members of committees of bodies funded by the PBC, such as the Isarael Science Foundation and the various joint research funds.

1.3.3 The Administrative Staff

The Council for Higher Education and the PBC have a permanent staff composed of 20 1/2 established posts, including the post of director-general. Fifteen of these posts require academic degrees.

The PBC's administrative staff is divided into three sub-units:

* **the secretariat** of the Council for Higher Education and the Planning and Budgeting Committee;
* **the ordinary budget**, including wages and matching allocations;
* **planning and development**, including statistics, indicators and academic planning.

1.4
The PBC and the Council for Higher Education

The Council for Higher Education is the State institution responsible for higher education, including teaching, science and research, in Israel. The PBC is a sub-committee of the Council and its executive arm. The Chairman of the PBC is ex-officio a member of the Council. PBC staff are employed in accordance with the provisos of the Council for Higher Education Law. The Chairman of the PBC reports to the Council on the activities of the PBC at every meeting of the Council.

In addition to its regular work on budgets and planning, the PBC advises the Council in such matters as the approval of new units and the authorization to award new academic degrees in existing institutions or the granting of a permit to a new institution or its accreditation or authorization to award academic degrees. The PBC presents its considered opinion to the Council on these issues, taking into consideration the planned development of the higher education system, financial implications and the needs of the State.

New academic units are processed according to rules agreed upon with the institutions of higher education and approved by the Council. According to these rules the institutions inform the PBC of their plans for any new unit or change in existing units and present the PBC with the information it requires regarding the proposal. The PBC examines the proposals from the point of view of the needs of the State, prevention of unnecessary duplication and financial considerations. If the PBC is of the opinion that the new unit has no financial implications and there is no need to examine it from the aspects of the needs of the State or unnecessary duplication, the PBC takes note of the new unit or change and notifies the institution concerned and the Council accordingly. In all other cases as well as requests for a permit or accreditation, the PBC forwards the matter to the Council which then appoints an examining committee. The conclusions of the examining committee and the PBC's recommendation are presented to the

Council for discussion and a decision. In 1989/90 the Council decided that requests for a permit to open and maintain an institution of higher education and requests to open new units in existing institutions will be discussed first by the PBC. If the PBC is of the opinion that the request, prima facie, has no basis, it will advise the Council to reject it without examination.

Requests by teacher training institutions for permission to open programs leading to the degree of "Bachelor of Education" are not examined by the PBC. The Council discusses them after the Ministry of Education and Culture has examined them and presented its recommendations.

A list of the members of the Council for Higher Education appears in Appendix 1.

2

THE HIGHER EDUCATION SYSTEM

2.1
General Data

The higher education system in Israel includes research universities, the Open University, institutions providing instruction at the bachelor's degree level only in technology, the arts and teacher training, and courses in regional colleges for which universities are academically responsible.

Universities and research institutions:

The Hebrew University of Jerusalem

The Technion - Israel Institute of Technology

Tel-Aviv University

Bar-Ilan University

The University of Haifa

Ben-Gurion University of the Negev

The Weizmann Institute of Science

* * *

The Open University of Israel

* * *

Institutions of higher education that are not universities but are accredited and authorized to award the bachelor's degree:

Bezalel - Academy of Arts and Design, Jerusalem

The Jerusalem Rubin Academy of Music and Dance

Jerusalem College of Technology

Shenkar - College of Textile Technology and Fashion

Ruppin Institute of Agriculture
Accredited and authorized to award the bachelor's degree in the program in economics and management of communal settlements

* * *

The College of Management - Academic Studies, Tel-Aviv
The academic program is accredited and authorized to award the bachelor's degree in accounting and marketing.

* * *

Seven institutions for the training of teachers that have received accreditation and authorization to award the degree of "Bachelor of Education" (for various programs of study):

Michlala, Jerusalem College for Women

The David Yellin Teachers College

Beit-Berl Teachers College

The Zinman College of Physical Education at the Wingate Institute

Levinsky Teachers College

State Teachers College Seminar Hakibbutzim

"ORT" Academic College for Teachers in Technology

* * *

"Oranim" The School of Education of the Kibbutz Movement
Has received a permit to open and maintain an institution of higher education for the course for the training of kindergarten, primary school and special education teachers

* * *

Academic courses in regional colleges for which universities are academically responsible:

The Municipal College of Eilat
Academic responsibility of Ben-Gurion University of the Negev

The S. Sapir Regional College of the Negev
Academic responsibility of Ben-Gurion University of the Negev

The Achva College
Academic responsibility of the Open University

The Menashe Regional College
Academic responsibility of Tel-Aviv University

The Alperin Regional College of the Jordan Valley
Academic responsibility of Bar-Ilan University

The Emek Yezrael Regional College "Ohel Sarah"
Academic responsibility of the University of Haifa

The Western Galilee Regional College
Academic responsibility of the Open University
and the University of Haifa

The Tel-Hai Rodman Regional College
Academic responsibility of the University of Haifa;
Agricultural courses academic responsibility of
the Hebrew University of Jerusalem

The Judea and Samaria Regional College
Academic responsibility of Bar-Ilan University

The Safed Regional College
Academic responsibility of Bar-Ilan University

The Ashkelon Regional College
Academic responsibility of Bar-Ilan University

* * *

Data in this report refer only to institutions that the PBC budgets. Fields of study at the institutions of higher education are listed in Appendix 2.

* * *

In 1990/91 there were approximately 71,190 students in the universities studying for academic degrees and diplomas, compared with 67,770 the previous year. This does not include students in special programs that do not lead to academic degrees.
In the Open University approximately 15,761 students took academic courses. There were about 1,900 students in non-university institutions of higher education funded by the PBC and a further 5,700 students in the academic programs in teacher training colleges.

Data on students in the universities and non-university institutions of higher education supported by the PBC appear in Appendices 3, 5 and 6.

Approximately 48,750 (68%) of the students in the seven universities in 1990/91 were studying for the bachelor's degree, 17,100 (24%) for the master's degree, 4,360 (6%) for the Ph.D. and 940 (1.3%) for a certificate (mainly secondary school teaching certificates).

In 1989/90 (final data for 1990/91 are not yet available) approximately 13,915 students received academic degrees from universities, 10,192 (73%) of them the bachelor's degree, 2,790 (20%) the master's degree and 450 (3%) the Ph.D. or its equivalent. A further 304 students received the bachelor's degree from the Open University and 366 from non-university institutions of higher education.
Data on recipients of degrees appear in Appendices 4, 5 and 7.
Data on staff in universities and non-university institutions of higher education appear in Appendices 8 and 9.
Data on built-up areas in the universities appear in App. 10.

2.2
The Institutions of Higher Education*

2.2.1 The Hebrew University of Jerusalem

The academic activity of the Hebrew University of Jerusalem is organized into the following units: the Faculty of Humanities (including the School of Education), the Faculty of Social Sciences (including the School of Business Administration), the School of Social Work, the Faculty of Law, the School of Library and Archive Studies, the Faculty of Mathematics and Sciences (including the School of Applied Science and Technology), the Faculty of Medicine (including the Schools of Pharmacy, Nursing, and Occupational Therapy), the Faculty of Dentistry and the Faculty of Agriculture. In addition, the University operates a School for Overseas Students.

The University has four research institutes, an institute for advanced studies and other units of a distinctive character. There are four university campuses - three in Jerusalem (Givat Ram, Mt. Scopus and Ein Karem) and one in Rehovot.

In 1990/91 there were 17,700 students in the University, 900 more than in the previous year, and 820 students in the special preparatory program for new immigrant students, compared to 500 in the previous year. There were also 100 new immigrant students studying for advanced degrees.

During the 1990/91 academic year 3,179 students received academic degrees: 2,308 the bachelor's degree, 620 the master's degree, 118 the Ph.D. and LL.D., and 133 the doctor of medicine, dental medicine or veterinary medicine.

Externally funded research amounted to $41 million in 1990/91, an increase of $3 million over the previous year.

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* Abstracted from information provided by the institutions.

2.2.2 The Technion - Israel Institute of Technology

Academic activity at the Technion is organized in the following faculties and departments: architecture and town planning (including landscape architecture), aeronautical engineering, civil engineering, electrical engineering (including computer engineering), biomedical engineering, materials engineering, agricultural engineering, chemical engineering, mechanical engineering, industrial engineering and management, food engineering and biotechnology, mathematics (including applied mathematics), computer science, nuclear engineering, physics, chemistry, biology, and teaching in technology and science.

The School of Medicine, which was founded in 1969, has been part of the Technion since 1973.

The "Technion Research and Development Foundation" is an independent authority carrying out research and development projects commissioned and funded by external sources.

In 1990/91 there were 9,770 students at the Technion, an increase of 700 over 1989/90. 7,060 of them were undergraduate students, 2,070 were studying for the master's degree, 580 for the Ph.D., and 60 for certificates.

During the 1990/91 academic year 1,704 students received degrees - 1,249 the bachelor's degree, 358 the master's degree, 75 the Ph.D. and 22 certificates.

The number of new students increased by 21% over the previous year, mainly due to the admission of new immigrant students.

Externally funded research amounted to approximately $24 million, a nominal increase of 20% over the previous year.

2.2.3 Tel-Aviv University

The academic activity of Tel-Aviv University is organized in the following units: the Faculty of Life Sciences; the Faculty of Exact Sciences; the Faculty of Engineering; the Faculty of Medicine; the Faculty of Humanities, including the School of Education, the School of History, the School of Language and Literature and the School of Jewish Studies; the Faculty of Law; the Faculty of Visual and Performing Arts (including the Academy of Music); the Faculty of Social Sciences; the Faculty of Management and the Graduate School of Business Administration; and the School of Social Work.

There were 19,440 students in the University in 1990/91, including 600 new immigrants who were admitted to regular programs of study. In the 1990/91 academic year 2,926 students received the bachelor's degree, 1,041 the master's degree, and 93 the Ph.D.

The number of externally funded research projects carried out at the University was 1,710, with a monetary value of $20 million.

2.2.4 Bar-Ilan University

The academic activity of Bar-Ilan University is organized in the following units: the Faculty of Jewish Studies; the Faculty of Humanities; the Faculty of Social Sciences (including the School of Education and the School of Social Work); the Faculty of Law and the Faculty of Natural Sciences and Mathematics.

The University's research activity is carried out through the Research Authority. The University established a research and development company.

The University campus is located near Ramat-Gan.

There were 10,200 students studying for academic degrees at the University in 1990/91 and 1,709 students received academic degrees - 1,386 the bachelor's degree, 248 the master's degree, 39 the Ph.D., and 177 certificates. There were 434 new immigrant students in regular University courses in 1990/91, as well as 453 in preparatory programs for new immigrant students.

2.2.5 The University of Haifa

The academic activity of the University of Haifa is organized in the following units: the Faculty of Humanities; the Faculty of Social Sciences and Mathematics; the School of Education the School of Social Work and the new Faculty of Law.

In 1990/91 there were 7,030 students in the University and 1,688 students received academic degrees. 88 new immigrant students were admitted in 1990/91 and there were 1,084 students in preparatory programs.

Externally funded research grants amounted to $1,572,452 in 1990/91.

2.2.6 Ben-Gurion University of the Negev

The academic activity of Ben-Gurion University of the Negev is organized in the following units: the Faculty of Humanities and Social Sciences (including the unit for teacher training); the Faculty of Natural Sciences; the Faculty of Engineering Sciences and the Faculty of Health Sciences.

The following research institutes are also part of the University: "The Institutes for Applied Research" (formerly the Institute for Desert Research); the "Institute for Desert Research" and the "Ben-Gurion Research Center". The last two are located in Sede Boker in accordance with a Government decision, although they are part of the University.

In 1990/91 there were 6,410 students in the University - 5,081 undergraduate students, 1,175 studying for the master's degree, and 216 studying for the Ph.D. There were 180 new immigrant students in regular university programs and 250 in the preparatory programs for new immigrants. The number of students has increased significantly recently and is expected to be doubled within the coming four years. During the 1990/91 academic year 1,251 students received academic degrees, 1,052 of them the bachelor's degree, 142 the master's degree (including the Doctor of Medicine), 22 the Ph.D. and 35 teaching certificates.

The value of externally funded research projects was $12.4 million in 1990/91, an increase of 17.5% over the previous year.

2.2.7 The Weizmann Institute of Science

The Institute is a post-graduate scientific research institute. Its academic departments are organized into the following faculties: the Faculty of Mathematical Sciences; the Faculty of Physics; the Faculty of Chemistry; the Faculty of Biophysics-Biochemistry; and the Faculty of Biology.

Since 1958 the Institute has operated the Feinberg Graduate School for students in master's degree and doctoral degree programs in the natural sciences.

A science teaching center at the Institute prepares science curriculum and teaching aids for schools. The "Yeda Research and Development Co. Ltd." was founded in order to promote the commercial exploitation of Institute research.

The Institute is located in the western part of the city of Rehovot.

In 1990/91 there were 640 students in the Institute - 190 master's degree students and 450 doctoral students. Forty of the students immigrated to Israel from the former Soviet Union since 1990 and 113 of the students were foreign students. During the 1990/91 academic year 68 master's degrees and 54 Ph.D.'s were awarded.

2.2.8 The Open University of Israel

The Open University was established as an experimental project by the Rothschild Foundation, based on a Government decision of August 19, 1973. Instruction began in 1976.

The aim of the Open University is to enable students who could not otherwise do so to acquire higher education by primarily home-based study. In addition to academic courses, the Open University offers general education courses, vocational courses, continuing education courses and pre-academic courses.

In 1973 the Council for Higher Education granted the Open University a permit "to open and maintain an institution of higher education" and in 1980 the Council accredited the University and authorized it to award the bachelor's degree.

Students are eligible for a bachelor's degree upon accumulation of 108 credit points, which is after completion of about 18 academic courses.

Study is conducted by correspondence, assisted by television and radio broadcasts.

There were 15,761 students taking academic courses of the Open University in 1990/91 and 304 bachelor's degrees were awarded, bringing the total number of degrees awarded by the University to 1,638.

During the 1990/91 academic year 250 academic courses were offered at the University.

2.2.9 Bezalel - Academy of Arts and Design, Jerusalem

The Bezalel Academy was founded in Jerusalem in 1906 as an arts and crafts school. It went through many transformations and has operated as an art academy since 1935. In 1973 the Academy received a permit "to open and maintain an institution of higher education", followed by accreditation as an institution of higher education.

The Academy has seven departments that are accredited by the Council for Higher Education: fine arts, graphic design, environmental design, industrial design, ceramic design, gold- and silversmithing, and photography. The Academy is authorized to award the degrees "Bachelor of Fine Arts" or "Bachelor of Design" in these departments. In August 1991 the Council for Higher Education decided to grant the Academy a permit to open a department of architecture.

The Academy is completing its move to the campus that is under construction on Mt. Scopus. In 1986 the first departments moved to a building that was acquired from the Hebrew University of Jerusalem and adapted to the purposes of the Academy.

There were 644 students at the Academy in 1990/91, including 179 new students, 12 of them new immigrants; 61 degrees were awarded.

2.2.10 The Jerusalem Rubin Academy of Music and Art

The Academy of Music was founded in Jerusalem in 1947. In 1971 it received a permit "to open and maintain an institution of higher education" and in 1974 was accredited and authorized to award the degree "Bachelor of Music". The Academy's departments are: performing arts (keyboard, stringed instruments, wind instruments, percussion and voice development), dance and movement, and composition, conducting and theory. The Academy also offers a program for the training of music teachers which awards the degree "Bachelor of Music Education".

In addition to the bachelor's degree, the Academy also offers a "Artist Diploma" upon completion of an additional two years of study.

The Academy operates a joint program with the Hebrew University of Jerusalem leading to the degrees "Bachelor of Arts" in music and "Master of Arts" in music.

The Academy is located, since 1985/86, in a building on Givat Ram that was purchased from the Hebrew University of Jerusalem and adapted to the Academy's needs.

In 1990/91 there were 439 regular students at the Academy, and 80 new immigrant students from the former Soviet Union were admitted during the year. The Academy awarded 46 degrees in 1990/91.

2.2.11 Jerusalem College of Technology

The College was founded in Jerusalem in 1970 as an institution that would combine advanced religious studies together with academic technological studies. Its aim is to train technolgists and technicians, with an emphasis on applied training, from among the religious population.

Jerusalem College of Technology is authorized to award the degree "Bachelor of Technology and Applied Science" to graduates of the departments of physics/electro-optics, electronics and computer sciences.

The College is located on a purposed-designed campus in western Jerusalem.

There were 305 students in the College in 1990/91 and 61 degrees were awarded. In the preparatory program for new immigrants there were 87 students.

2.2.12 Shenkar College of Textile Technology and Fashion

The College was founded in 1970 at the initiative of the Association of Manufacturers and the Ministry of Industry and Trade in order to train high level professionals for the textile and fashion industries. The College received a permit "to open and maintain an institution of higher education" in 1976 and in 1979 it was accredited and authorized (gradually) to award the bachelor's degree.

The College is authorized to award the bachelor's degree in the following programs: textile technology, textile chemistry, textile design, fashion design, and industrial management. The College also has two-year programs for the training of technicians.

The College is located in the city of Ramat-Gan.

There were 344 students at Shenkar in 1990/91.

3

PLANNING, NEW UNITS AND INFORMATION

3.1
Planning

The PBC is involved with long-term planning of the higher education system as well as current issues having planning aspects.

The PBC advises the Council for Higher Education before the Council reaches decisions on the granting of permits "to open and maintain an institution of higher education" and accreditation and/or authorization to award academic degrees of new institutions or new fields or new units in existing institutions. The PBC is obliged to present its considered opinion on the need for the new institution or unit and its financial significance.

In 1990/91 the PBC continued its activity in general and specific subjects in accordance with its policy.

In 1990/91 the PBC dealt with two main planning issues: the preparations of the higher education system for wide-scale immigration; and the readiness of the system to cope with the anticipated increase in demand for undergraduate studies in the near future, while maintaining academic quality.

3.1.1 Preparations for the Absorption of Immigration

The wave of immigration from the CIS, the Commonwealth of Independent States (the former Soviet Union), brings to Israel many students who stopped their studies at various stages, as well as young people who are interested in commencing academic study. There are also many scientists who were employed at institutions of higher education or at government or industrial research institutes.

During the year under review the PBC dealt with the absorption into the higher education system of these immigrants, both immediate absorption needs and long-term needs, that is - preparations for the absorption of the immigrants expected to arrive in coming years.

Already in 1989/90 the PBC decided to focus its attention on the absorption of new immigrant students, with all the

planning and budgetary implications that it entails. The absorption of new immigrant scientists will be limited to that necessitated by the expansion of the system; only some of the new immigrants scientists will thus be able to find employment in the higher education system. Employment for the others will have to be found in the industrial sector of the economy or in government research institutes, although the higher education system will be able to assist by providing some temporary employment opportunities for researchers, until they find permanent employment.

As to the admission of new immigrant students, the PBC directed the institutions of higher education to admit all qualified applicants, that is - the thresholds for admission to the various faculties must not be changed, so as not to adversely affect the admission of Israeli students.

In 1990/91 the number of new immigrant students from the CIS admitted to the institutions of higher education as regular students did not yet increase significantly, due to the fact that many of them were still studying in special preparatory programs for new immigrant students. Approximately 1,200 students who are new immigrants from the CIS have been admitted to the institutions of higher education, most of them as undergraduate students. A further 200 have been admitted as doctoral students and there are approximately 2,500 studying in special preparatory programs. In addition, 900 new immigrant students are studying in non-academic post-secondary institutions. During the 1990/91 academic year, 45 new immigrant researchers (from all countries) joined the regular staffs of the institutions of higher education; 280 more received temporary appointments.

When the wave of immigration began, it was forecasted that a million immigrants would arrive from the Soviet Union within four to five years, which would mean approximately 70,000 young people in the relevant age group (18-25) for higher and post-secondary education, of whom about 40,000 would be interested in admission, at various degree levels, to the institutions of higher education. Immigration is also expected to contribute to the increase in the number of high school graduates, including Israelis, in the future. It was anticipated that a wave of immigration of this scope would include approximately 20,000 scientists, many of whom would be interested in finding employment in the higher education system.

These forecasts served as the basis for the PBC's policy discussions on preparations for immigration, which began in 1989/90. In 1990/91 it became clear that the PBC would have to operate in conditions of uncertainty, both as to the scope

and timing of the arrival of the immigrants and as to their inclination to higher education.

There appears to have been some exaggeration in forecasts of the percentage of new immigrants who would be interested in and qualified for admission to the institutions of higher education, although it is still difficult to make more realistic forecasts. In one or two years' time it will be possible to investigate the inclinations of the new immigrants to continue their education, their choice of higher or other post-secondary education, their suitability to the Israeli higher education system, their ability to realize their wish to continue their education, from the aspect of the economic means available to them and the assistance that the State is willing to extend to them for this purpose, and the fields of study that they prefer.

3.1.2 Expansion of the Higher Education System

The PBC estimates that in the coming years, beginning in 1990/91, 30,000 additional students will enter the higher education system. Of this number, approximately two-thirds will be due to immigration and one third will be due to the natural growth of the local population. The PBC prefers that these additional students will be admitted primarily to the institutions in the periphery, in accordance with the policy of population dispersal, to reinforce the north and the south of the country, and because of academic considerations, in order to strengthen those institutions that have not yet attained their optimal size.

These policies guided the PBC in its discussions with the heads of the institutions of higher education, at which the following targets for growth were determined:

The Hebrew University of Jerusalem	2,000	students
The Technion	2,000	"
Tel-Aviv University	2,000	"
Bar-Ilan University	5,000	"
The University of Haifa	5,000	"
Ben-Gurion University of the Negev	6,000	"

Several hundred more students can be admitted to the non-university institutions of higher education (teacher training colleges, the institutions for music, art, administration, etc.). For the remainder of the growth (approximately 6,000 - 7,000 students) new options will have to be created at a later stage, when the capabilities of the existing institutions to admit additional students will be exhausted.

The institutions were asked to draw up plans and to prepare estimates of the financial means that will be required for

them to achieve these objectives, taking into consideration physical infrastructure, resources for recruiting additional staff, operating expenses, etc.

The Ministry of Finance is providing the PBC with the means necessary to get the process of expansion underway; this is already evidenced in the 1992 budget, following upon sums that were budgeted in 1991. The PBC, for its part, sent guidelines to the institutions indicating the resources that would be available to them for expansion and transferred advance payments to them for this purpose.

The PBC continues to deal with long-term planning aspects of the anticipated large-scale expansion of the higher education system, based on the assumption of a million new immigrants, even if their arrival extends over a longer period than originally foreseen.

This subject is closely connected with that of the next section - undergraduate studies.

3.1.3 Undergraduate Studies

The Council for Higher Education and the Planning and Budgeting Committee held a series of discussions on this topic in recent years and determined that the institutions already existing in 1988 were sufficient to provide undergraduate studies for any additional students in the then-forseeable future. As a result, and in order to maintain academic quality and prevent any depreciation in the value of the bachelor's degree, the Council did not perceive any need to establish any additional undergraduate colleges. The Council also decided that the academization of vocational post-secondary institutions (including institutions for the training of teachers) should proceed in a more controlled and cautious manner than in the past. The Council furthermore decided to continue the distinction between the bachelor's degree awarded by universities and that awarded by non-university institutions of higher education. This distinction is maintained in the name of the degree, with those awarded by non-university institutions expressing the vocational aspect of the studies.

The wave of immigration and the growth of the veteran population have significantly altered forecasts for demand for higher education. In the midst of wide-scale immigration and public calls to widen access to higher education so that greater numbers of young people can obtain an academic education, the Council for Higher Education saw fit to reexamine these decisions. As a result, in June 1990 the

Council appointed a subcommittee to examine ways of making higher education more accessible and diversified.

This subcommittee focused on the possibilities of adapting and expanding the higher education system so that increased demand for higher education, from various sources, could be met, while at the same time fulfilling different needs.

The main source of increased demand for higher education was anticipated to be the population of new immigrants; this was when a million new immigration were forecasted, with an estimated 25-35,000 young people seeking an academic education.

At the same time, demand for higher education among the existing population was expected to increase because of the natural growth of the relevant age group (2%-2.5% per year) and higher rates of participation in higher education; many young people see undergraduate studies as an aim in themselves, without striving to continue beyond a bachelor's degree, in order to acquire a profession or training for employment or study leading to an academic degree. The options considered by the subcommittee are meant to provide solutions for candidates who were not admitted to institutions of higher education because either their matriculation exam results or their scores on the psychometric entrance examination were insufficient, particularly for admission to certain preferred fields of study, and for people who do not complete their studies and drop out before receiving a degree.

The recommendations of the subcommittee were as follows:

1. The major share of additional demand for higher education can be met by the existing system - the universities, the Open University, the non-university institutions (including teacher training colleges), and the academic courses in regional colleges for which universities, including the Open University, are academically responsible.

   The system's ability to expand must be utilized to the fullest, especially that of the universities in the periphery. Incentives may have to be used to attract students to institutions in the periphery, and the academic courses in the regional colleges will be have to be expanded.

   In addition to increasing the number of students in existing programs of study, the system will have to develop new programs so as to offer a wider variety of study programs leading to a bachelor's degree; methods of instruction, mainly at the undergraduate level, will have

to be diversified in order to facilitate the participation of different sectors of the population and to reduce the drop-out rate and the tendency to prolong study beyond the standard time required to obtain a degree.

The subcommittee is of the opinion, furthermore, that undergraduate teaching should be made more efficient through the utilization of new methods of instruction, allowing for the reduction of the number of frontal teaching hours.

2. After the latent potential of the existing system is fully exhausted and the changes proposed above are implemented, there will still, presumably, be an excess of demand for higher education over the ability of the system to provide it. This may be quantitative (although the existing system should be able to admit half of the forecasted increase in student numbers, provided it is assured of the necessary resources) or from the aspect of preferred fields of study or the geographic dispersion of the population. The subcommittee dealt with needs in general and the feasibility of academization of technological subjects and the establishment of new institutions of higher education.

3.1.4 Subject Reviews

The PBC conducts occasional reviews of subjects or organizational frameworks that are in need of up-dating, modifications or development. These reviews are carried out by sub-committees of the PBC and their recommendations assist the PBC in determining priorities and long-range planning within the confines of the limited resources available to it

3.1.4.1 **The Life Sciences**

The review of the life sciences will be conducted in stages. The first stage will be a mapping of all activities in the life sciences in all frameworks (faculties of biology, medicine, agriculture, etc.) and their analysis from different aspects such as staff, equipment and plans for the development or curtailment of programs. A committee was appointed at the end of 1987/88 to conduct this stage of the review.

In 1988/89 the committee prepared two types of questionnaire for the mapping of activities in the life sciences: a general questionnaire intended for rectors and deans with questions regarding development plans and policy, and a more detailed questionnaire intended for department and unit heads with requests for information on staff and their activities, research activities (as evidenced in research contracts and grants and cooperation between researchers), teaching activity

(as shown by the number of courses taught, the number of hours taught, number of students, etc.) and the scientific equipment available to the unit or department. Questionnaires were sent out and the replies, which were received in the middle of the 1989/90 academic year, were classified and processed at the end of the 1989/90 and the beginning of 1990/91. The committee met to discuss the results of the survey and to begin to formulate its recommendations during 1990/91.

3.1.5 Visits to Institutions

Each year the PBC visits a number of institutions of higher education. The purpose of these visits is to gain an overall impression of the institution's activities, especially academic development, which serves as the background to a discussion of the institution's specific problems. Prior to each visit the institution presents background material and the PBC holds a preliminary discussion. Following the visit the PBC holds a summary discussion.

In 1990/91 the PBC visited the Technion in Haifa.

3.2 New Academic Units and Closure of Units

According to agreed-upon procedures, the institutions of higher education must notify the PBC of their plans to open any new academic unit or to carry out changes in any existing unit, including closures. The PBC must advise the Council for Higher Education on all new units proposed, the financial significance of the unit and its place in the general plan for higher education, all with a view to preventing unnecessary duplication.

The Council for Higher Education has authorized the PBC to decide which new units require a thorough examination and the approval of the Council and which do not require approval. When an examination and approval by the Council are not required, the PBC is authorized to inform the institution and the Council of the new unit.

3.2.1 New Academic Units Discussed by the PBC in 1990/91

In 1990/91 the PBC discussed the financial and planning aspects of the following proposals to open new units and presented its opinion to the Council for Higher Education:

3.2.1.1 **Law**

During 1989/90 both the University of Haifa and the Open University made plans to initiate programs of study in law. During 1990/91 these proposals were discussed by the Council for Higher Education.

A. The Establishment of a Faculty of Law at the University of Haifa

In July 1989 the Council granted the University of Haifa permission to prepare to open a faculty of law. A committee was appointed to evaluate various aspects of the proposed faculty and it recommended that the Council approve the opening of a faculty of law. The PBC, for its part, reviewed the budgetary side of the proposal and determined that the cost projections were reasonable. In December 1990 the Council approved the opening of a faculty of law at the University of Haifa. The Council stipulated that the new faculty should stress the public and business administration aspects of law. The University was authorized to award the degree L.L.B. to graduates of the faculty.

B. The Request of the Open University to Initiate a Program of Study in Law

In February 1990 the Open University requested permission from the Council to open a program of study leading to a bachelor's degree in law that would entitle graduates to work as legal interns and take the examinations of the Bar Association. The Council appointed a committee to examine the request, particularly the suitability of the method of instruction at the University - distance education - to the requirements of legal education. The committee made several suggestions relating to the nature of instruction in the program and recommended that only holders of Israeli matriculation certificates, or its equivalent from abroad, should be accepted to the program (no matriculation certificate is required for admission to other Open University programs of study). It recommended that the Council approve the request. The Bar Association, however, presented its reservations as to the suitability of distance education to the study of law. The PBC reviewed the budgetary aspects of the proposal and also presented reservations to the proposal, particularly in view of recent changes in the demand for admission to study law following the opening of private, non-academic, law schools and the expansion of the existing faculties of law.

In January 1991 the Council discussed the proposal and decided to delay its final decision for a year, in order to evaluate better the demand for admission to study law.

3.2.1.2 **The Request of the University of Haifa to Open a Program of Study Leading to the Bachelor's and Master's Degrees in Business Administration**

In September 1986 the University requested the Council's permission to open a program of study leading to a bachelor's degree in business administration. A committee was appointed to evaluate the request but the request was later withdrawn. In March 1991 the University requested approval for a program of study leading to a master's degree in business administration and, at the same time, asked the Council to reconsider its previous request regarding the program leading to a bachelor's degree, in view of the rising demand for admission to programs of study in this subject. The University already has a study trend in business administration in its Department of Economics.

The PBC discussed the request and recommended that discussion of the proposed program leading to the master's degree be postponed until the bachelor's degree program has been in operation for a number of years. The PBC also stated that the University's proposal is relatively expensive. The Council for Higher Education accepted the PBC's recommendation to postpone discussion of the proposal to open a program of study leading to a master's degree in business administration and appointed a committee to evaluate the proposal for the program leading to the bachelor's degree and the relative cost of the proposal compared with similar programs at other universities. In the meanwhile, the University asked the Council to defer its appointment of the committee until the University is able to review the issue in the context of its academic priorities.

3.2.1.3 **The Request of Bezalel - Academy of Art and Design, Jerusalem to Open a Program of Study Leading to a Bachelor's Degree in Architecture**

Already in 1983 Bezalel had requested permission to initiate a bachelor's degree program in architecture, to be based on the existing department of environmental design. At that time, after a careful examination by a special subcommittee, the Council decided that the time was not yet ripe for such a step. The Council suggested that Bezalel upgrade the level of the department of environmental design to a level that is appropriate for a school of architecture.

In December 1990 Bezalel requested that the Council review its previous decision in view of developments that had transpired since then. The PBC appointed an examiner to investigate to what extent Bezalel had fulfilled the recommendations of the earlier subcommittee. The report of this examiner was favorable and the PBC recommended that the Council grant Bezalel permission to prepare for the opening of a bachelor's degree program in architecture, contingent upon the

fulfillment of certain conditions, both academic and budgetary. Most of these conditions were met and in March 1992 the Council granted Bezalel provisional accreditation for the department of architecture, dependent upon the recruitment of additional staff. The program of study will take five years to complete and graduates will receive the degree "Bachelor of Architecture".

3.2.1.4 **Undergraduate Programs in Communication**
The Council for Higher Education has discussed the study of communication several times over the years, reaching the conclusion that communication should be a subject for study at the master's degree level, based on undergraduate study in a related academic discipline. In 1987 one of the universities requested permission to open a bachelor's degree program in communication. The Council decided to hold a fundamental discussion of the subject prior to a discussion of the specific request. Since the Council was balanced on this issue it decided that each request should be judged on its own merits.

In May 1990 the Hebrew University of Jerusalem requested the Council's approval for a bachelor's degree program in communications. The Council appointed a subcommittee to examine the request and this subcommittee reached the conclusion that there was no justification for limiting communication to programs at the master's degree level. The PBC evaluated the University's request from the budgetary aspect and recommended that it be approved. In April 1991 the Council for Higher Education approved the Hebrew University's request for permission to open a bachelor's degree program in communication, stipulating that the program be a dual-major program and with certain other budgetary conditions.

3.2.2 <u>New Academic Units Approved</u>

In November 1990 the Council broadened the PBC's role in the approval of new academic units, authorizing it to reject any requests that, in its opinion, are unbased.

The PBC authorized the opening of the following new academic units in 1990/91 after it decided that they do not require approval by the Council for Higher Education:

The Technion
- a master's degree program in engineering specializing in construction management in the Faculty of Civil Engineering;

- bachelor's degree study in Tel-Aviv and in Haifa, as part of the Extension Division of the Technion Foundation for Research and Development.

Tel-Aviv University
- a dual-major bachelor's degree program in management and sociology;
- changes in the undergraduate curriculum in the Faculty of Humanities.

Bar-Ilan University
- the opening of additional specialization tracks leading to a master's degree in education.

The University of Haifa
- the name of the "trend for cognitive psychology and human engineering", a master's degree program, was changed to the "trend for research psychology";
- two new programs in special education in the School of Education: the training of special education teachers for secondary schools, in addition to a teaching certificate in a disciplinary field; a program leading to a teaching certificate in special education alone, without requiring a teaching certificate in a disciplinary field.

Ben-Gurion University of the Negev
- the name of the department of biology was changed to the "Department of Life Sciences";
- recording of the specialization in either "organizational sociology" or "organization of welfare services" on the diploma awarded to students upon completion of the master's degree program in sociology-anthropology.

The Jerusalem Rubin Academy of Music and Dance
- changes in the organizational and academic structure.

3.3
Statistics and Indicators

The methodical collection, processing and analysis of statistical data are an important part of the day-to-day activities of the PBC - for planning and budgeting as well as the determination of policy in matters connected to higher education. During 1990/91 work continued on the formation of a data base for the PBC which will allow for the integration and analysis of data of different types and from different sources on input, the progression of studies and the output of higher education in Israel. Work on a set of performance indicators of various aspects of higher education also continued. A data

base for the scientific output of the universities in Israel is part of this project. The development of a methodology for the computation of teaching costs in different fields and at different levels of study is also underway.

The following activities connected to statistical data and indicators were carried out during 1990/91:

3.3.1 Data Collection and Processing by the Central Bureau of Statistics

The PBC commissions the Central Bureau of Statistics to collect and process most of the data on higher education in Israel. Every year statistical reports are published on candidates, students, and recipients of degrees in the universities and non-university institutions of higher education.

A new series of publications dealing with the progress of studies of university students is being planned. This series will provide data on the duration of studies until their completion, cessation of study, changing of majors, etc. The first publication in this series is due to appear in 1991/92.

The Central Bureau of Statistics collects other data relevant to the planning of higher education, such as: the scope and fields of study in secondary schools; recipients of matriculation certificates; the number of academics in the population; manpower characteristics, including education and employment; and research activities and research manpower.

The following reports were published in 1990/91:

1. **Candidates for First Degree Studies in Universities 1989/90.** Series of Education and Culture Statistics no. 196, reprinted from the Supplement to the Monthly Bulletin of Statistics, no. 7, 1991;
2. **Students in Universities and other Institutions of Higher Education 1989/90.** Series of Education and Culture Statistics no. 197, reprinted from the Supplement to the Monthly Bulletin of Statistics, no. 8, 1991;
3. **Recipients of Degrees from Universities and other Institutions of Higher Education 1989/90.** Series of Education and Culture Statistics no. 199, reprinted from the Supplement to the Monthly Bulletin of Statistics, no. 9, 1991;

The following publications are in preparation:

1. **Candidates for First Degree Studies in Universities, 1990/91;**

2. **Students in Universities and Other Institutions of Higher Education, 1990/91;**
3. **Recipients of Degrees from Universities and other Institutions of Higher Education, 1990/91;**
4. **The Progress of Studies of University Students.**

Data on higher education and other relevant data such as recipients of matriculation certificates and the study habits of twelfth-graders are published in the "Education and Culture" chapter in the Statistical Yearbook and in other publications of the Central Bureau of Statistics.

3.3.2 Data on Manpower in the Universities

The PBC strives to improve its and the universities' achievements in the swift and precise processing of data on manpower in the universities.

The PBC commissioned extensive surveys on manpower in the universities for the years 1978/79 and 1981/82. Since 1982/83 the PBC staff have carried out smaller-scaled surveys based on data supplied directly by the universities. These surveys present a detailed picture of the situation of the academic, administrative and technical manpower in the universities and its break-down according to wage-grade scales and source of funding. Results appear in PBC publications (See Appendices 8 and 9).

These surveys are carried out on a quarterly basis and are used by the PBC for statistical purposes as well as follow-up and control.

4

THE HIGHER EDUCATION BUDGET

The higher education budget includes the PBC's allocations to the institutions of higher education (direct allocations to ordinary budgets and special allocations), allocations for development, and the PBC's administrative budget.

4.1
PBC Allocations to the Higher Education System

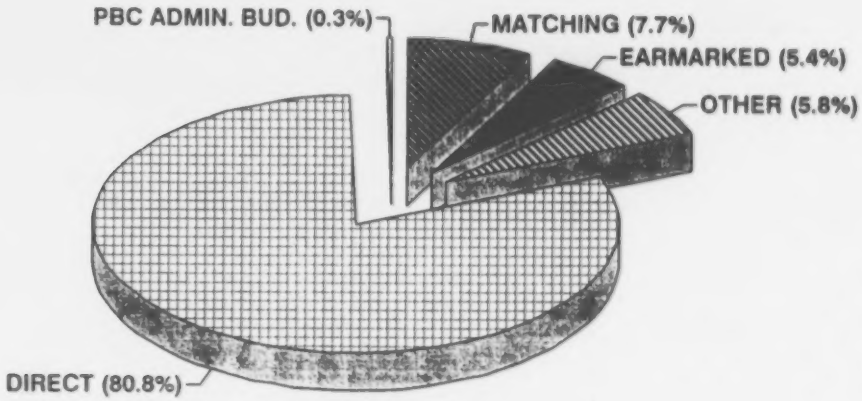
One of the functions of the PBC, as set forth in its terms of reference, is to submit budget proposals for higher education to the Government and to allocate the global budget to the institutions of higher education after it is approved by the Knesset.

According to the Council for Higher Education Law, the institutions of higher education are at liberty to conduct their academic and administrative affairs autonomously, within the limitations of their approved budgets. The authorities in each institution approve its budget only after the heads of the institution have discussed and finalized it with the PBC.

The total approved ordinary budget of the higher education system in 1990/91 was NIS 1,631,354,800. Total PBC allocations in 1990/91, excluding the development budget, amounted to NIS 1,033,619,100, according to implementation, of which NIS 964,610,800 were to the institutions of higher education and the remainder to other activities in the higher education system that are not financed directly by the universities (financial aid to students, the students loan fund, the Israel Science Foundation, etc.).

The largest portion of the higher education budget is allocated in the form of direct global allocations to the institutions of higher education. The remainder is allocated for special subjects and for activities connected with research and academic development.

PBC ALLOCATIONS TO ORDINARY BUDGETS



PBC Allocations to Ordinary Budgets - 1990/91
In NIS Thousands and as Percentage of Total Allocations

Total (1)	1,033,619.1	100%

Direct allocations to the institutions of higher education	834,740.8	80.8%
Matching allocations to endowment funds	79,151.1	7.7%
Earmarked allocations for research and special subjects (2)	56,429.6	5.4%
Other allocations (3)	59,997.6	5.8%
PBC's administrative budget (4)	3,300.0	0.3%

(1) Includes compensation for the increase in student numbers and immigration.
(2) Includes allocations for research, earmarked allocations and inter-university activities (budget sections 3, 4, and 5).
(3) Includes allocations for student support, miscellaneous subjects and budgetary transfers (budget sections 6, 7, 9, and 10).
(4) The PBC's administrative budget is a separate budget section which is not part of the higher education budget (budget section 8).

Details of PBC Allocations to Ordinary Budgets
(NIS Thousands, Current Prices)

	1989/90	1990/91
Total	809,453.6	1,033,619.1
1 Direct Allocations	633,425.2	834,740.8
1.1 Universities (1)	537,360.0	699,752.7
1.2 Universities - long-term plan	77,601.5	111,858.1
1.3 Non-university institutions (2)	18,463.7	23,130.0
2 Matching Allocations	72,650.4	79,151.1
2.1 Universities	72,257.4	78,633.4
2.2 Non-university institutions	393.0	517.7
3 Allocations for Research	25,239.0	32,266.5
3.1 Yigal Allon Fellowships	3,231.0	4,151.0
3.2 Scientific equipment for inter-university use	4,140.0	1,386.4
3.3 Israel Science Foundation (3)	15,070.0	19,859.0
3.4 Joint PBC - Ministry of Defense Research Fund (3)	1,000.0	900.0
3.5 Joint Atomic Energy Commission-PBC Research Fund (3)	894.0	1,164.0
3.6 USA-Israel Education Found. (3)	30.0	31.0
3.7 Research fellowships in the humanities and social sciences	224.0	343.5
3.8 Research grants for young staff	650.0	932.2
3.9 Post-doctoral research grants	-	2,259.4
3.10 Scholarships for immigrant doctoral students	-	1,240.0
4 Earmarked Allocations	14,604.0	17,134.5
4.1 Computer centers	2,448.0	2,707.0
4.2 Purchase of books & periodicals	9,060.0	12,020.0
4.3 Special program in electronics at Tel-Aviv University	3,096.0	2,407.5
5 Inter-University Cooperation	3,775.0	7,028.5
5.1 Inter-Univ. Computing Center	845.0	673.0
5.2 Inter-library cooperation and "Aleph" program	610.0	589.5
5.3 Inter-University Center, Eilat	1,590.0	2,040.0
5.4 Super-computers	730.0	3,346.0
5.5 Computer communications lines	-	380.0

- Continued on Next Page -

	1989/90	1990/91
6 Student Support	19,550.0	24,699.7
6.1 "Perach" scholarships (3)	14,200.0	17,519.7
6.2 Students Loan Fund (3)	5,350.0	7,180.0
7 Other Subjects	11,887.7	21,737.3
7.1 Pre-academic prep. programs	4,669.1	4,791.0
7.2 Academic programs in regional colleges	360.0	1,546.4
7.3 Teaching of accountancy	179.5	79.5
7.4 Tax refund - Open University	3,647.7	5,626.2
7.5 Israeli Academic Center in Cairo (3)	584.1	660.0
7.6 Peripheral hospitals (7)	391.1	482.0
7.7 Reduction of debts (5)	15,200.0	7,800.0
7.8 Data and guidance system for students (3)	245.0	43.0
7.9 Miscellaneous allocations (4)	1,811.2	709.2
8 PBC's Administrative Budget	2,635.0	3,300.0
9 Israel Academy of Sciences and Humanities	1,555.0	2,120.0
10 Budgetary Transfers	8,932.3	11,440.6
10.1 Medical research - Hadassah Medical Organization (3)	8,310.0	10,360.0
10.2 Participation by Government Ministries (6)	622.3	1,080.6

(1) Including special allocations for the absorption of new immigrants in the universities.
(2) Includes an allocation to the Ruppin Inst. of Agriculture amounting to NIS 250,000 and additional sums for the absorption of new immigrants in the non-university institutions of higher education.
(3) Allocations not transferred directly to the universities.
(4) Includes, in 1990/91, transfers for the study of occupational therapy at the Technion and the University of Haifa.
(5) In 1990/91 this allocation was made to the Technion, Bar-Ilan University, the University of Haifa and Ben-Gurion University of the Negev.
(6) Transfers by the Ministry of Education and Culture for a program for the training of principals in universities.
(7) Includes transfers by the Ministry of Health and the General Sick Fund for clinical appointments amounting to NIS 321,000 in 1990/91 and NIS 257,000 in 1989/90.

4.2
The Ordinary Budget

Activities in the institutions of higher education can be classified according to three budgetary types:

* the ordinary budget - for current activity in teaching and research;
* closed budgets, mostly financed from outside sources, for research and special study programs;
* the development budget.

Most expenditures of the institutions of higher education are included in the ordinary budget: wages, purchase of scientific equipment, books, periodicals, materials and expendables, routine maintenance, renovations, student support, etc.

The PBC approves the budgetary outlines of the institutions of higher education as a condition for participation in their budgets. Approved outlines for the ordinary budgets of the institutions in 1990/91 amounted to NIS 1,631,354,800. Two-year budgetary outlines for 1990/91-1991/92 were concluded with most of the institutions. These were made possible due to agreements with the Ministry of Finance regarding long-term State allocations.

The components of the ordinary budgets of the institutions of higher education are presented in the following tables:

Income of All Institutions of Higher Education Included in the Ordinary Budget 1990/91[1] and Distribution According to Source (NIS Thousands)

Total Income	1,631,354.8	100%

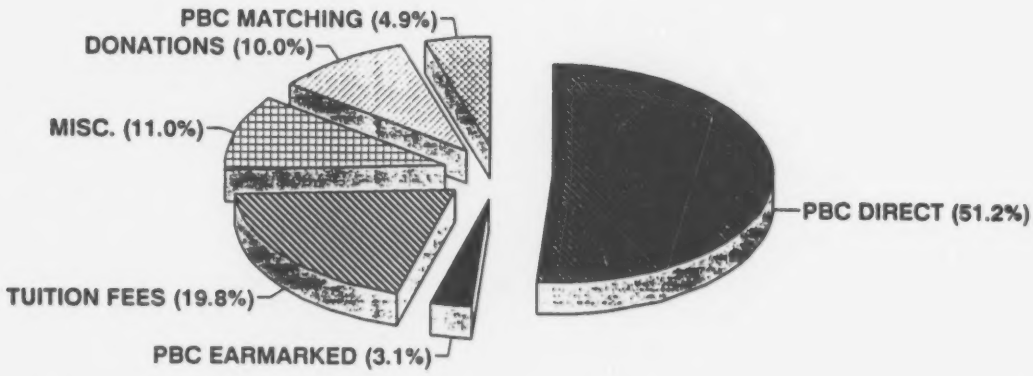
Direct PBC allocations (2)	834,481.8	51.2%
PBC matching allocations to endowment funds	79,151.1	4.9%
PBC earmarked allocations for research and other subjects (3)	50,977.9	3.1%
Income from tuition fees	322,605.0	19.8%
Income from donations	163,770.0	10.0%
Miscellaneous income (4)	180,369.0	11.0%

(For notes, see following page)

Notes to table on previous page

1 Universities and non-university institutions of higher education. Excluding the Ruppin Institute of Agriculture.
2 Including allocations to Ben-Gurion University of the Negev resulting from the "Nativ Committee" and to the Weizmann Institute of Science for severance pay and additional research posts. Also includes a direct allocation to compensate for the increase in student numbers.
3 Including earmarked allocations for research and other earmarked allocations, inter-university cooperation and other subjects, as well as external participation amounting to approximately NIS 1.4 million.
4 Other income, excluding budgetary transfers.

SOURCES OF INCOME



The Ordinary Budget of the Universities - 1989/90 - Implementation, and 1990/91 - Budget

(NIS Thousands, at Current Prices)

	Total Expenditures	Income						
		PBC Allocations		Income From Donations	Income From Tuition Fees	Other Income	Transferred to Other Budgets	Total Income
		Direct (3)	Earmarked (4)					
1989/90 (1) Total	1,295,418	607,660	131,065	136,096	244,534	189,551	28,257	1,280,659
Hebrew University	340,596	165,920	32,286	66,340	45,641	29,938	12,745	327,380
Technion	203,500	117,250	20,410	14,981	28,199	33,735	8,425	206,150
Tel-Aviv University	280,425	125,200	24,031	10,580	72,552	46,581	1,384	277,560
Bar-Ilan University	104,386	51,540	10,859	1,837	31,326	12,352	3,001	104,949
University of Haifa	64,261	26,670	6,764	966	24,198	10,193	2,618	66,173
Ben-Gurion Univ.	112,519	55,600	16,914	8,372	21,113	14,503	-	116,502
Weizmann Institute	155,516	56,550	19,522	31,620	-	39,095	-	146,787
Open University (2)	34,215	8,930	279	1,364	21,505	3,164	84	35,158
1990/91 (5) Total	1,583,510	811,611 (5) (7)	129,499 (4) (6)	160,190	314,745	215,265	37,476	1,593,829
Hebrew University	408,010	217,908	32,916	79,100	68,811	46,760	37,476	408,018
Technion	262,470	156,912	20,510	16,100	33,155	39,096	-	265,772
Tel-Aviv University	328,590	167,920	23,523	8,200	95,450	33,500	-	328,593
Bar-Ilan University	136,700	71,316	11,986	2,300	38,945	13,955	-	138,502
University of Haifa	83,070	35,677	6,683	1,500	25,415	14,900	-	84,175
Ben-Gurion Univ.	143,020	77,599	15,154	10,100	24,540	19,725	-	147,118
Weizmann Institute	179,570	72,799	18,422	41,800	-	46,550	-	179,571
Open University (2)	42,080	11,480	305	1,090	28,425	780	-	42,080

Notes:

(1) According to the notes to the balance sheets of the universities as prepared for the PBC (except for the Technion - according to financial reports).

(2) Budget outlines and PBC participation do not include tax returns for the Open University (in 1989/90 - NIS 3,647,000 and in 1990/91 - NIS 5,626,000).

(3) Less over-budgeting in 1989/90 - NIS 34,950,000.

(4) Includes earmarked allocations transferred to closed budgets and research budgets.

(5) The budgetary outline and PBC participation include over-budgeting from 1989/90 amounting to NIS 34,950,000.

(6) Includes allocation for reduction of debts (in NIS thousands): Technion - 6,600; Bar-Ilan - 1,800; Haifa - 1,100 and Ben-Gurion - 1,600.

(7) Includes the following supplements: to compensate for growth in student numbers due to immigration in 1990/91 - NIS 9,672,000; for the "Nativ Committee" - NIS 340,000; for severance pay - NIS 1,340,000; and for supplements for research students - NIS 669,000.

Regular Activity of the Non-University Institutions of Higher Education - 1989/90 (Implementation) and 1990/91 (Budget)

(NIS Thousands, at Current Prices)

	Total Expenditures	Income					
		PBC Allocations		From Donations	From Tuition Fees	Other Income	Total Income
		Direct (1)	Earmarked				
1989/90 (1) Total	30,528	17,990	650	3,847	6,290	3,794	32,571
Bezalel - Academy of Art and Design, Jerusalem	10,537	6,210	210	906	2,430	1,407	11,163
Jerusalem Rubin Academy of Music and Dance	5,906	3,570	136	396	1,429	1,201	6,732
Jerusalem College of Technology	8,516	4,260	258	2,359	1,200	980	9,057
Shenkar - College of Textile Technology and Fashion	5,569	3,950	46	186	1,231	206	5,619
1990/91 (2) Total	37,440	22,781 (2) (3)	630	3,580	7,865	2,580	37,526
Bezalel - Academy of Art and Design, Jerusalem	12,110	7,920	170	825	2,860	335	12,110
Jerusalem Rubin Academy of Music and Dance	7,700	4,692	155	195	1,975	685	7,702
Jerusalem College of Technology	10,240	4,960	250	2,425	1,455	1,150	10,240
Shenkar - College of Textile Technology and Fashion	7,390	5,299	125	135	1,575	410	7,474

Notes:

(1) According to the notes to the balance sheets prepared by the institutions for the PBC, less over-budgeting in 1989/90 amounting to NIS 1,040,000.

(2) Approved and updated budget outline, plus the sum over-budgeted in 1989/90 - NIS 1,040,000.

(3) Includes an allocation for immigrant absorption - NIS 101,000.

4.2.1 The Direct PBC Allocation

The PBC's direct allocation represents the principal component of the budgets of the institutions of higher education. The apportionment of the allocation between the institutions is determined each year based on various indices such as the number of students, the number of graduates, the relative cost of different fields and levels of study, essential teaching fields and the scope of research.

4.2.2 Matching Allocations to Endowment Funds

Matching allocations are granted in order to encourage the accumulation of donations in endowment funds, the profits from which are added to the current budgets of the institutions of higher education. These allocations had their beginning in "historical obligations" by Ministers of Finance in the period preceding the PBC's establishment to allocate special sums over and above direct government allocations for this purpose.

Since 1982/83 a new method of determining matching allocations has been implemented. Each institution presents to the PBC a detailed annual report audited by an accountant on any movements or changes in eligible endowment funds as well as the status of investments of assets in Israel. This report serves as the basis for the approval of the matching allocation for endowment funds, which are computed as a percentage (7%) of total eligible endowment funds.

Since the Ministry of Finance no longer views endowment funds as vital for the State's foreign exchange balance and in order to give the PBC more leeway in the allocation of the resources available to it, the PBC decided in 1987/88 that it would limit its obligations to grant matching allocations for new eligible endowment funds.

The PBC therefore "froze" its obligations up to 30.9.1987 - that is, matching allocations for 1987/88 were "advance allocations", although the PBC allowed the institutions a "transitional year" for additional funds received until 30.9.1988 on account of commitments made prior to 30.9.1987.

According to the reports that the institutions must make to the PBC each year, the total value of all eligible funds as of the end of 1989/90 (30.9.90) was approximately NIS 1,111 million (about $540.4 million) and served as the basis for computing the matching allocations for 1990/91. Matching allocations to the institutions of higher education in 1990/91 amounted to approximately NIS 79.2 million as detailed in the following table:

Matching Allocations - 1990/91
(NIS Thousands)

	Value of the funds 30.9.90	Matching Allocation 1990/91
Total	1,111,620.0	**79,151.1**
The Hebrew University of Jerusalem	303,489.3	**21,625.5**
The Technion - IIT	160,215.2	**12,171.6**
Tel-Aviv University	191,489.3	**13,404.2**
Bar-Ilan University	73,132.3	**5,119.3**
The University of Haifa	34,562.9	**2,419.4**
Ben-Gurion University of the Negev	121,401.1	**8,498.1**
Weizmann Institute of Science	216,802.2	**15,176.2**
The Open University of Israel	3,131.6	**219.2**
Bezalel - Academy of Art & Design	2,294.4	**160.6**
Jerusalem Rubin Academy of Music and Dance	2,205.7	**154.4**
Jerusalem College of Technology	2,148.4	**150.4**
Shenkar - College of Textile Technology and Fashion	747.6	**52.3**

4.2.3 The PBC's Special Allocations

Special allocations are in the following areas:

Allocations for research;
Earmarked allocations for computers, equipment and books;
Inter-university activities;
Student support;
Other subjects.

These subjects are discussed in greater detail in Chapters 5 (development of academic infrastructure and promotion of scientific excellence), 7 (inter-university cooperation) and 9 (other subjects).

4.2.4 Income from Tuition Fees

Continuing erosion of the value of tuition fees until 1984/85 caused the Knesset to raise tuition fees in the institutions of higher education by means of the imposition of a "temporary tuition levy", which was to be charged at a partial rate in 1984/85 and at the full rate in 1985/86 and 1986/87. The imposition of this levy was preceded by lengthy negotiations with students, beginning in 1983/84, on the raising of tuition fees in order to counteract erosion, as the "Katzav Committee" recommended, and in order to increase fees in real terms, as part of the new economic policy of the Government. The tuition levy was canceled in 1987/88 when the Government established a new rate of tuition fees that was lower than the combined tuition fees and levy that had been charged students during the preceding two years. The higher education system received compensation for the lower level of income from tuition fees. Tuition fees in 1988/89 were set at the same level, in real terms, as in 1987/88, plus adjustment for inflation.

During 1988/89 all parties concerned agreed to an arrangement whereby tuition fees would be increased, in real terms, by 9% for the years 1989/90 and 1990/91. The method of compensating for inflation for this period was also determined.

Early in 1990/91 a public committee was appointed to determine tuition fees and supplemental fees for the years 1991/91 - 1995/96. The committee decided that tuition fees would be fully up-dated according to the consumer price index, based on the rate of NIS 3,866 in July 1990 prices, and would be payable by students in six installments.

Beginning in 1992/93 tuition fees will be increased, in real terms, by 1% for 1992/93 and 2% per year for the years 1993/94 - 1995/96. This increase will be directed to the expansion of student support programs through the addition of 2,000 Perach

(tutorial project) scholarships beginning in 1991/92 and to the improvement of student services in the universities.

The committee decided furthermore that the collection of extra fees for student services will be dependent on whether or not the students is required to use the services in order to receive a degree. As a result, two categories of student services were defined: obligatory and optional services.

Obligatory services are defined as those that are required by the student for study or to acquire a degree. The following services are included in this category:

a. admission, registration fees;
b. fees for required studies (English and field trips);
c. institutional confirmations, such as confirmation of eligibility for studies, completion of studies, etc.

The price of these services will not deviate from the general level of fees in 1987/88. The price of a course in English as part of the exemption from foreign language studies may be more than 15% of the annual tuition for a year course.

Optional services are defined as:

a. services the universities can offer optionally at the discretion of the student and the student may decide whether or not to use them. The universities may collect payment for such services.
b. comprehensive services for which there is centralized fee collection from students. Payment for these services may be collected from students only if an agreement to this effect has been signed with one of the local student unions.

In 1990/91 income from tuition and supplemental fees represented approximately 19.7% of the total income of the institutions of higher education.

4.2.5 Income from Donations

Most donations come from abroad. Income from donations to the ordinary budget was expected to reach approximately NIS 164 million in 1990/91. This does not include income from endowment funds, donations to endowment funds and donations to the development budget.

4.2.6 Miscellaneous Income

This category includes:
* income from investments and assets of the endowment funds;

* sale of services (including overhead from other budgets);
* participation by government ministries and others in the operation of special programs such as advanced training courses for teachers, para-medical professions, etc.

4.3
University Debts

With the PBC's assistance the debts owed by the institutions of higher education have decreased in real terms. In the following table, loans owed by the universities at the end of 1990/91 are compared with those owed at the end of 1989/90. They include credit in current drawing accounts ("overdraft"), bank credit and internal credit. The figures are nominal and reflect a decrease in real terms of about 11% in the debts owed by the universities due to loans at the end of 1990/91 compared with the end of 1989/90.

Debts Owed by the Universities as of 30.9.90 and 30.9.91
In NIS Thousands, at Current Prices

(1)	(2)		(3)		(4)		(3) + (4) = (5)	
Institution	Highest Overdraft in September		Bank Credit		Internal Credit		T o t a l (Excl. overdraft)	
	1990	1991	1990	1991	1990	1991	1990	1991
Hebrew University	-	4,450	26,925	28,945	78,606	96,556	105,531	125,501
The Technion	-	-	-	-	-	-	-	-
Tel-Aviv University	9,172	12,634	3,427	2,395	30,460	29,846	33,887	32,241
Bar-Ilan University	119	-	4,533	2,404	5,143	5,982	19,676	8,386
University of Haifa	-	-	-	-	-	-	-	-
Ben-Gurion Univ.	-	-	1,862	1,035	-	-	1,862	1,035
Weizmann Institute	8,903	2,762	12,925	4,966	48,795	51,835	61,720	56,801
Grand Total	18,194	19,846	49,672	39,745	163,004	184,219	212,676	223,964

Notes:
1 1989/90 - according to audited reports.
2 1990/91 - according to data supplied by the institutions.
3 The increase in the Hebrew University's internal debt is due in part to the charging of internal interest between the university and the funds committee; at the Weizmann Institute it is due to the forwarding of income from the institutions's friends' organization.

4.4
Wages

In 1989/90 the PBC continued to deal with wages in the higher education system, in coordination with the official in charge of wages in the Ministry of Finance. The PBC's guiding principle is that each and every institution is totally and directly responsible for fulfilling wage agreements. Approval by the official in charge of wages in the Ministry of Finance, recommendations of the wages committee of the Committee of Heads of Universities, and coordination with the PBC serve as upper limits to the decisions of each institution.

The PBC was active in the following:

* A statistical follow-up on the payment of research bonuses to the senior academic staff of every university. Since 1987/88 allocations for research bonuses ("type B") are included in the regular PBC allocation, as are those for "type C" research bonuses.

* Observation of the discussions and recommendations of the wage committee of the Committee of Heads of Universities.

* In 1988/89, according to the wage agreement with the academic staff, the Chairman of the PBC appointed a committee of experts to examine the erosion of academic staff salaries compared with those of a control group as determined in the agreement (the upper quartile of engineers and academic employees in the civil service). The examination that was carried out in February 1991, for the period December 1990 and January 1991, showed an erosion of 7.6% in academic staff salaries in the four years since July 1987.

4.5
The Development Budget

4.5.1 Construction in the Institutions of Higher Education

In 1990/91 as in all of the past decade, construction in the institutions of higher education was smaller than in the previous decade and relative to the general activity of the institutions: it was confined to a small number of projects. The expansion of the system that is necessary in order to accommodate new immigrants began to be felt in 1990/91 mainly in the renovation and adaptation of existing structures in order to make room for additional students.

Part of the construction activity was within the confines of the general long-term development plan that began in 1981/82, part consisted of special projects financed from the State budget and part was fully financed from donations.

The long-term development plan (originally for the period 1981/82 - 1985/86) was agreed upon between the PBC and each of the institutions of higher education and the PBC and the Ministry of Finance in 1982. It was intended to encompass 115,000 square meters of construction, which would be financed partly by the PBC. It was composed of essential projects approved by the PBC from among plans totaling about 300,000 square meters proposed by the institutions. The approved plans represented an increase of about 8% over the built-up area, or less than 1% a year until the end of the decade.

Projects included in the plan are for the development of fields having national priority (such as engineering, especially electrical engineering and electronics and dentistry) or for the alleviation of specific instances of shortage of space that hamper the proper functioning of an institution.

The PBC's participation in each of the projects is pre-determined according to set tariffs which take into account the importance of the project, the total cost of the investment and the resources available from donations. The PBC's participation usually covers up to a third of the cost and in special cases may be up to half the cost.

The long-term plan, which was approved in principle by the Ministry of Finance, was based on the agreement that the Israeli Shekel equivalent of about $10 million (at 1982 prices) would be allocated yearly for five years. However, due to budgetary cutbacks, the sums available to the PBC for implementing the long-term plan were less than anticipated. By the end of 1990/91 only about 80% of the promised sums had been budgeted. As a result, implementation of the plan was slowed down and some approved projects were postponed. The plan that was to have ended in 1985/86 will only be able to be completed in this decade, according to the current rate of budgeting. By the end of 1990/91 the construction of approximately 73,000 square meters was completed and a further 11,000 square meters were under construction.

As part of the long-term development plan the PBC also intended to devote resources to participation in renovations and adaptations (beyond routine repairs and maintenance which are financed from the ordinary budget) of ageing buildings and systems in order to adapt existing structures to changing needs and uses instead of initiating new construction. In 1982/83 and 1983/84 sums were allocated for this purpose and

participation in projects of this nature was up to 50% of the cost. However, since 1984/85, due to restricted resources available to the PBC, virtually no allocations could be made.

Approval was given for the construction of two buildings not included in the long-term plan which are to be fully financed by a special allocation from the State budget; construction began in 1989/90 and continued in 1990/91. Both buildings are at Ben-Gurion University of the Negev. Approval was given to one building in order to honor an obligation made to the donor in 1972, and to the second building as a result of a decision by the Ministerial Committee for the Negev.

In 1990/91 a special development program for the absorption of new immigrant students was implemented, financed by a special allocation of NIS 15.5 million, NIS 7 million of which was from the Administrator-General from general endowments to the State. This emergency plan is intended to provide immediate solutions for the absorption of new students. It is composed of various projects in different institutions for the rapid and easy renovation and adaptation of buildings for additional classroom space and rooms in student dormitories.

Even projects financed entirely, including maintenance costs, from donations require the PBC's approval. Each request is examined from four aspects: the needs of the university; the requirements of society and the economy; the total investment involved including maintenance costs; and the availability of resources. In 1990/91 the PBC approved five projects of this nature. During the whole period of the long-term plan approximately 80,000 square meters of buildings (almost identical to the extent of publicly-financed construction), fully financed from donations, were constructed; about half of this construction was at the Technion.

4.5.2 Finances

Total investment in construction in the higher education system in 1990/91 amounted to approximately NIS 87 million, most of this in the universities. Public participation in development budgets in 1989/90 increased over the previous year and amounted to NIS 40 million for projects included in the long-term plan or financed by special allocations from the State budget.

Data on actual investments and PBC participation in development budgets in 1988/89, 1989/90 and 1990/91 are presented in the following table. It should be noted that figures for investments and participation in any particular year do not always correspond because the accounting extends over several years.

Development Budgets of the Universities - 1988/89 - 1990/91
(NIS Thousands, at Current Prices)

	1988/89		1989/90		1990/91	
	Actual Investments (1)	PBC Partici-pation	Actual Investments (1)	PBC Partici-pation	Estimated Investments	PBC. Partici-pation
Total	43,420	5,460	74,310	7,620	82,000	39,570 (7)
Hebrew University	750	-	4,490	-	13,000	5,000
Technion - IIT	6,800 (3)	-	13,200 (3)	-	10,000 (3)	2,500
Tel-Aviv University	16,390	3,090 (5)	14,470	- (5)	14,000	3,940
Bar-Ilan University	7,450	1,650	4,620	1,090	5,000	3,190
University of Haifa	1,590	430	1,280	365	3,000	3,070
Ben-Gurion University Total	3,390	290 (6)	16,540	6,165	22,000	21,870
Inst. for Desert Research (2)	(510) (4)	(290)	(2,910) (4)	(365)	(1,000)	(200)
Weizmann Institute of Science	6,870	-	19,420	-	15,000	-
Open University	180	-	290	-	-	-

(1) According to the financial reports of the universities. Includes construction, installations and furniture in new buildings but does not include scientific equipment.
(2) Defined as a project of special national importance.
(3) After deduction of estimated commitments pending and investments in equipment from the development budget.
(4) Includes equipment.
(5) Does not include special allocation of NIS 696,000 in 1989/90 for the building for electrical engineering at Tel-Aviv University (from the ordinary budget).
(6) Does not include a special allocation of NIS 775,000 in 1988/89 for the planning of a building for humanities and social sciences at Ben-Gurion University of the Negev (from the ordinary budget).
(7) Includes a special allocation for immigrant absorption, half of it from the funds of the Administrator-General.

Investments in construction in the institutions of higher education have declined steadily for many years: in 1990/91 investments in universities were only about 28% of their scope in 1973/74. Whereas at the beginning of the 70's the development budget was about 25% of the total higher education budget, in 1990/91 it was only about 3%.

In this same period PBC participation in development budgets of the institutions diminished even more rapidly. In 1989/90 it was 11% of what it was in 1973/74: at that time PBC participation in development budgets was about 16% of total PBC participation in higher education budgets and in 1989/90 the percentage was less than 2%. In 1973/74 PBC participation was about 50% of total investments but in 1989/90 it was only about 16%, with most of it coming from donations.

A turning-point occurred in 1990/91; participation increased, due to special allocations for development to accommodate the large numbers of new immigrant students, from NIS 16 million in 1989/90 to NIS 40 million in 1990/91 (at 1990/91 prices). As a result, government participation as a percentage of total investments in construction in the higher education system, rose to almost 47%.

The following table presents data on the development budget of the higher education system from 1973/74 to 1990/91.

Due to delays in funding and in the collection of donations which were to finance a large share of the development programs, certain institutions, in particular Tel-Aviv University, accumulated deficits in development budgets. According to agreements with the institutions, these deficits are to be covered during the coming years.

The Development Budget of the Universities 1973/74 - 1990/91
(NIS Thousands)

	Universities (1)		Other Institutions		Universities (1)		Other Institutions	
	At Current Prices				At 1990/91 Prices (2)			
	Invest-ments	PBC Alloc.	Invest-ments	PBC Alloc.	Invest-ments	PBC Alloc.	Invest-ments	PBC Allo.
1973/74	26.0	13.0	-	-	284,580	141,550	-	-
1974/75	31.3	14.1	-	-	250,910	112,930	-	-
1975/76	28.5	8.7	-	-	181,810	55,880	-	-
1976/77	31.9	12.8	-	-	158,720	63,950	-	-
1977/78	50.7	16.7	-	-	161,660	54,340	-	-
1978/79	75.7	17.0	-	-	140,620	31,340	-	-
1979/80	161.4	44.5	-	-	134,920	31,120	-	-
1980/81	381.0	84.3	2.6	1.8	134,990	29,870	9,230	6,370
1981/82	734.6	180.7	42.4	42.7	122,690	30,190	7,080	7,130
1982/83	1,724.5	337.1	63.0	50.6	128,290	25,080	4,680	3,760
1983/84	5,583.0	1,358.3	1,067.0	105.5	103,630	25,210	19,800	1,950
1984/85	25,074.0	4,992.0	2,697.4	900.0	106,020	21,110	11,420	2,440
1985/86	40,770.4	9,406.6	3,580.6	152.0	97,490	23,310	8,870	380
1986/87	50,530.0	7,971.0	2,992.6	279.0	94,030	15,640	5,880	550
1987/88	54,670.0	4,440.0	4,396.0	2,560.0	88,230	7,160	7,050	4,130
1988/89	43,420.0	5,460.0	12,110.0	4,240.0	59,360	7,460	16,560	5,790
1989/90	74,310.0	7,620.0	14,660.0	5,780.0	86,970	8,920	17,160	6,760
1990/91	82,000.0 (3)	39,570.0 (4)	5,000.0 (3)	430.0	82,000 (3)	39,570 (4)	5,000 (3)	430

1 Includes the Open University
2 1990/91 prices are based on the Construction Price Input Index.
3 Estimate.
4 Includes a special allocation for immigrant absorption, half of it from the funds of the Administrator-General.

5

DEVELOPMENT OF ACADEMIC INFRASTRUCTURE AND PROMOTION OF RESEARCH AND SCIENTIFIC EXCELLENCE

The universities are engaged in both teaching and research. University teaching not accompanied by research cannot maintain a proper academic level for any length of time.

About 35% of all research and development in Israel in the civilian sector in the natural sciences, medicine, agriculture and engineering takes place in the universities. Most research in the humanities and social sciences is conducted in the universities, as is virtually all of the basic research, which is financed from the ordinary budget and external research funds (amounting to tens of millions of dollars).

Almost all the technological advances in industry and defense in Israel were achieved due to basic research conducted in the institutions of higher education ten or even twenty years earlier. The foundations for science and technology in the 21st century must be laid in the universities now. Every effort must be made to expand funds for financing basic research in the universities and to increase the existing external funds - the Israel Science Foundation and the bi-national funds (with the United States and Germany).

The PBC's activities designed to promote university research are as follows:

5.1
The Israel Science Foundation

The Israel Science Foundation (formerly known as the Basic Research Fund), which is financed by the State budget for higher education for which the PBC is responsible, awards grants for basic research to researchers in the universities on a competitive basis, based on quality and excellence. The system for the support of basic research was established in 1972 following a decision of the Prime Minister and the Minister of Education and Culture; its administration was entrusted to the Israel Academy of Sciences and Humanities. Until 1978 this support system operated in two branches: the Arm for Applied Research at the National Council for Research and Development and the Basic Research Branch at the Israel

Academy of Sciences and Humanities. The basic research branch became an independent foundation in 1979. From 1979-1988 the Israel Academy of Sciences and Humanities operated the Israel Science Foundation in cooperation with the PBC. The Foundation had a council composed of representatives of the Academy and the PBC.

The agreement between the PBC and the Ministry of Finance regarding the long-term budgetary plan to advance the higher education system and its implementation enabled the PBC to increase significantly its allocation to the Israel Science Foundation for the years 1987/88 - 1990/91. It was also decided that as of 1988/89 the Research Fund for Electronics, Computers and Communication would merge with the Israel Science Foundation, which would support research projects in these fields. As of 1988/89 the PBC also transferred to the Foundation its program of special allocations for the purchase of scientific equipment on a competitive basis, which existed from 1977/78 to 1988/89. This subject is now an integral part of the Israel Science Foundation.

The PBC made part of the increase conditional on the adoption of new regulations by the Foundation and the appointment of a public council and administration, which was necessitated by the increased scope of the Foundation. The Chairman of the PBC and the President of the Israel Academy of Sciences and Humanities together drew up a proposal for new regulations in 1988/89.

The new regulations of the Foundation, which were adopted by its outgoing council, the council of the Academy and the PBC in December 1989, were implemented in 1989/90. They are based on two premises: the Foundation, which will be administered by the Academy, is to be operated on the basis of scientific and public standards; the resources of the Foundation, composed of a current budget deriving from income from endowment funds and other income generated by the Foundation according to its rules, will be kept separate from the budgetary responsibility and maintenance of the endowment funds themselves.

A new council was set up, composed of ten members: the President of the Academy, two representatives of the Academy's council, the Chairman and another representative of the PBC, three full professors from the higher education system, and two public representatives of national standing. A new administration, composed of seven members, was also appointed: the Chairman of the Foundation, who is a scientist, three leaders in fields of research, a representative of the PBC, a member of the scientific community, and the Director of the Academy.

The criteria for evaluating research proposals are: the importance of the research, its originality and novelty, and the personal scientific excellence of the researcher and his scientific qualifications. Grants are awarded for a period of from one to three years.

The Academy's efforts to recruit endowment funds, the income from which will finance research grants awarded through the Israel Science Foundation and according to its criteria, have begun to show results. It is hoped that these sources will prove to be a suitable complement to the PBC's increased allocations and will enable the Foundation to expand its salutary activities even further.

In 1990/91 the PBC increased its allocation to the Israel Science Foundation by the equivalent of $ 9 million and the allocation in 1992/93 will be equivalent to $ 11 million. The increase of the allocation is part of the PBC's long-term plan.

In 1990/91 the Foundation awarded 336 grants, 123 of them for new research projects, 121 for second-year grants and 92 for third year grants. The Foundation also awarded 30 grants to researchers for the purchase of permanent equipment, amounting to NIS 1,700,500.

PBC allocations to the Israel Science Foundation in 1990/91 totalled NIS 19,859,000. The Foundation awarded grants amounting to $9,795,875, of which $8,242,678 (equivalent to NIS 19,859,000) were financed from the PBC allocation and $1,553,250 from grants and donations for research.

Grants from the Israel Science Foundation in 1990/91
(In US$)

	New Research Projects	Continuing Projects			Total
		Second Year	Third Year	All Continued Projects	
Total	5,114,300	2,756,750	1,828,575	4,586,325	9,699,625
Natural Sciences	4,777,950	2,398,000	1,679,125	4,077,125	8,855,075
Of this: Exact Sciences	895,750	689,000	494,500	1,183,500	2,079,250
Life Sciences	1,244,700	1,189,000	1,184,625	2,373,625	3,618,325
Scientif. Equipment	1,700,500	-	-	-	1,700,500
Others	937,000	520,000	-	520,000	1,457,000
Humanities & Soc. Sci.	336,350	358,750	149,450	508,200	844,550

Based on data from the Israel Science Foundation.

5.2
Yigal Allon Fellowships for Outstanding Young Researchers

The Allon Fellowship Program is designed to enable the universities to recruit outstanding young researchers to their staffs. Competition for the fellowships is based on personal excellence and there are no quotas for institutions or subjects. The fellowships permit the universities to provide the fellows with initial full-time appointments as "lecturer" or "senior lecturer". The university undertakes to employ the fellow and include his salary in its ordinary budget at the end of the three years of the fellowship, thus ensuring the integration of the fellows into the higher education system.

The PBC awards over 20 three-year fellowships per year, each equivalent to the average salary of a lecturer or senior lecturer as the case may be. In addition, since 1989/90 each fellow receives a one-time research grant which, in 1990/91, amounted to NIS 59,000 for fellows in the experimental sciences and NIS 17,700 for fellows in other fields.

Twenty-five Allon fellows took up their positions in 1990/91, the tenth year in which Allon Fellowships were awarded: 5 in the humanities, 4 in the social sciences, 5 in the life sciences and 11 in the exact sciences and engineering. NIS 4,151,000 were transferred to the universities to cover the expenses of 66 fellows in three different three-year cycles in 1990/91.

Eleven Allon fellows in the experimental sciences and 15 in the theoretical subjects received research grants totalling NIS 915,000.

In 1990/91 the selection committees chose the fellows of the 11th cycle, who will commence work in 1991/92. In this cycle 32 fellows were chosen: 7 in the humanities, 4 in the social sciences, 8 in the life sciences and 12 in the exact sciences and engineering.

Yigal Allon Fellowships - 11th Cycle
(1991/92-1992/93-1993/94)
Statistics by Subject Area

	Total	Human-ities	Social Sciences	Life Sciences	Exact Sciences & Engineering
Requests	98	19	9	29	41
Candidates	96	19	9	32	36
Fellowships Awarded	32	7	4	9	12

Note: The difference between the number of requests and the number of candidates stems from the fact that some candidates were presented by more than one institution.

5.3
Guastella Fellowships

In 1990/91 the Rashi Foundation inaugurated a fellowship program for the recruitment of new immigrants to university staffs. Fellows receive an initial full-time appointment to the rank of "lecturer", "senior lecturer" or "associate professor" in a university.

No institutional or subject field quotas are determined for the selection of the fellowships, which are for three consecutive years. The criteria for selection are: the personal excellence of the candidate, the needs of the universities and the needs of the State of Israel.

The fellowship is equivalent to the average salary of an academic staff member of the same rank (lecturer, senior lecturer or associate professor) and, in addition, the fellow may receive, as needed, a grant of $30,000 for the purchase of equipment. The university undertakes to employ the fellow and include his salary in its ordinary budget at the end of the three years of the fellowship. In 1990/91 (for the 1991/92 academic year) 25 fellows were selected. The PBC provided approximately 20% of the cost of the fellowships.

5.4
Scholarships for Outstanding Doctoral Students in the Humanities and Social Sciences

After examining the subject the PBC reached the conclusion that a problem exists in the training of potential academic staff in the humanities. This is due to a decline in the qualifications of students admitted to these subjects and to the length of time necessary to complete research theses because students are not able to devote all their time to research (as opposed to the situation in the experimental sciences). A survey of subsistence grants to graduate students that was carried out in 1986/87 showed that the universities awarded only 115 grants to students in all fields of the humanities and the social sciences, compared with 945 grants to students in the exact sciences.

The PBC therefore decided to inaugurate a special program for the award of 10 three-year subsistence scholarships for outstanding doctoral students in the humanities and some of the social sciences. The program is for four years and began in 1987/88.

The scholarships are equivalent to $7,000 a year, for three years. The institutions present lists of candidates and undertake to provide scholarship recipients with $750 a year (in NIS) for research expenses and to refrain from employing them in return for the scholarship award. Furthermore, if they are employed as teaching assistants they may not be burdened with more than 4 weekly teaching hours per year. Scholarship recipients, for their part, must complete their research projects within three years.

Changes were made in the regulations of this program in 1989/90: the student's master's degree thesis (or symposium papers if the student is in a direct Ph.D. program), an appraisal of the thesis, and his or her plans for the doctoral thesis must be included in the application. These serve as the basis for the selection of scholarship recipients.

In 1990/91 the PBC operated the fourth cycle of this program by awarding scholarships to ten students, from among 18 candidates presented by the universities.
The PBC transferred NIS 344,000 to the universities in 1990/91 for the scholarships of 24 students from the first three cycles.

5.5
Allocations for Scientific Equipment

In 1988/89 the PBC changed its policy of awarding allocations for the purchase of scientific equipment. It was decided to transfer the allocations, which were awarded on a competitive basis from 1977/78 to 1987/88, to the Israel Science Foundation as part of its grant program.

The PBC will now concentrate on allocations for the establishment of national centers for scientific equipment for basic research - that is, a laboratory or expensive equipment that is purchased by a specific institution and operated by it but available for use to researchers from all institutions. Since a program of this nature involves many considerations with planning aspects the PBC decided to operate it directly.

A referee, appointed for each request, recommends that the PBC either approve or reject the request.

For each national center approved by the PBC a committee of users is formed, composed of researchers from the host institution as well as other institutions. The committee's task is: to inform the academic community of the possibility of utilizing the equipment of the national center and the procedures for such use; to review the research proposals of

those who request to use the equipment of the national center; and to decide to whom to charge the expenses incurred by this use.

PBC participation in the establishment of national centers for scientific equipment in 1990/91 amounted to NIS 1,386,400, as follows:

1. NIS 547,000 for the establishment of a national center for penetrating electron microscopy of frozen state materials at the Weizmann Institute of Science.

2. NIS 715,000 for the establishment of a center for mass spectroscopy at the Technion.

3. NIS 124,000 for the center for the crystallographic examination of biological macro-molecules at the Hebrew University of Jerusalem (in addition to NIS 485,000 allocated for the center in 1989/90).

5.6
Allocations for the Purchase of Books and Periodicals

In view of the importance of the acquisition of books and periodicals and the danger of diminishing acquisitions in times of budgetary constraints, the PBC makes a special annual allocation for the purchase of books and periodicals by university libraries. Since the allocation is intended to encourage universities to purchase more books and periodicals, its amount depends upon the sum each institution devoted from its own resources to this purpose in the previous year.

Since ten years have passed since the PBC began to award earmarked allocations for the purchase of books and periodicals, the PBC held a fundamental discussion of the subject at the end of 1988/89. It decided to increase its allocations significantly and to change the method of allocation.

The institutions' allocations from their own resources for this purpose amounted to NIS 16,400,000 in 1990/91 and the PBC's special allocation for university libraries was NIS 12,000,000. For the purposes of comparison, the PBC's allocation in 1989/90 was NIS 9,060,000 and in 1988/89, NIS 4,965,000.

Beginning in 1989/90 the basis for the apportionment of this allocation among the institutions is their share in the

division of the institutions' own expenditures on the acquisition of books and periodicals in recent years. The PBC's allocation is conditional: the institutions must allocate from their own resources 10% more, in dollars, than they allocated in the previous year.

As of 1990/91 the PBC allows the universities to include in the calculation their expenditures on books and periodicals in the academic courses in the regional colleges for which they are academically responsible. This decision is intended to encourage the universities to improve the libraries of the academic courses in regional colleges.

6

FUNDS FOR THE ENCOURAGEMENT OF RESEARCH IN SPECIAL SUBJECTS, FINANCED JOINTLY WITH OTHER ORGANIZATIONS

6.1
The Joint Atomic Energy Commission - PBC Research Fund

The purpose of this fund is to encourage cooperation between the AEC and the institutions of higher education and to promote scientific research in fields which are of joint interest.

This fund operates through a joint PBC-AEC administration and a selection committee. Research projects must be in a field of activity which is of interest to the AEC and must be carried out in institutions of higher education.

The PBC's participation in this fund in 1990/91 amounted to NIS 1,164,000.

6.2
The Joint PBC - Ministry of Defense Research Fund

The purposes of this fund are:
* to promote scientific research in the universities in fields of joint interest;
* to expand the scientific-technological infrastructure of the universities in areas that are of mutual interest;
* to foster and advance young researchers or researchers returning from abroad in relevant subjects in the universities or to train them for employment in high-tech industries.

A joint administration operates the fund. Research projects are chosen by professional committees and are carried out by researchers in the universities.
PBC participation in the fund for 1990/91 was NIS 900,000.

6.3
The United States - Israel Education Foundation

This fund, also known as the "Fulbright Foundation", is a bi-national fund based on an agreement between the two governments signed in 1956. Each year the foundation finances visits to Israeli universities by US lecturers, researchers and students and also awards scholarships to Israeli students and post-doctoral researchers who wish to study in the US.

Half of the foundation's annual budget is financed directly by the US Government, and a third derives from the proceeds of an endowment fund of $5 million that was set up in 1985.

Since 1967 the Government of Israel participates in the foundation through the Ministry for Foreign Affairs and the PBC. The PBC's participation in the foundation in 1990/91 was $15,000, while the Ministry for Foreign Affairs's participation was $35,000.

7

INTER-UNIVERSITY COOPERATION

The PBC encourages cooperation among the institutions of higher education. To this purpose the following measures have been taken in recent years: the Inter-University Computing Center (IUCC) was established; a communications network to facilitate computer communication between universities in Israel and abroad was set up; university libraries were computerized uniformly; the National Center for Testing and Evaluation was established, replacing separate centers in each university; and a national information system on the requirements for admission to the institutions of higher education was developed.

The Hebrew University of Jerusalem's institute for oceanography in Eilat serves as an inter-university institute for oceanographers, marine biologists and geologists from all universities and holds inter-university courses for students of all institutions. In addition, the activities of the Institute for Desert Research and the Ben-Gurion Research Center, both part of Ben-Gurion University of the Negev and located at Sede Boker, were expanded and are available to researchers from all the institutions. The Israel Academic Center in Cairo serves researchers from all universities.

Coordinated purchasing is practiced by the universities, mainly in the field of computers. In this area they can utilize their joint purchasing power.

Joint academic degrees are awarded in some academic programs: a master's degree and Ph.D. in economics awarded jointly by the Technion and the University of Haifa; a master's degree in music awarded jointly by the Hebrew University of Jerusalem and the Jerusalem Rubin Academy of Music and Dance; and a bachelor's degree program in occupational therapy offered jointly by the University of Haifa and the Technion.

7.1
Computers

For approximately ten years the PBC has been supporting computerization in the universities in two ways: by participating in the expenses of university computing centers and by participating in the expenses of the IUCC (Inter-University Computing Center).

7.1.1 Development of Computing Centers

Until 1989/90 the PBC supported the development of university computing centers with the aim of encouraging rational long-range planning in each institution while taking into account the over-all computing needs of the academic community in Israel. The PBC encouraged the reciprocal utilization of computer resources in order to enable equipage of the system as a whole to progress in a gradual and orderly manner and to allow for the regulation of demand in each institution, as well as facilitating decision making without pressure.

In 1989/90 a new subcommittee for compucation (communication and computers) was appointed to re-examine the PBC's activities in this area.

As a result of this committee's recommendations, the PBC decided to alter the direction and form of its allocations for computing. As of 1990/91, instead of general allocations for the development of computing centers, allocations will be for clearly defined projects presented by the institutions for the development of computing services for teaching and research needs. The projects should serve a large number of researchers and students and should be based on standard equipment rather than on experimental equipment. The institutions must undertake to obtain supplemental financing for the projects and must provide the ncecessary technical personnel.

In 1990/91 the PBC approved the compucation committee's recommendation to allocate funds for 13 projects of this nature, with a total cost of NIS 2,722,000. Since 1990/91 was a transition year, two institutions received allcations for the development of computing centers and one institution received a retroactive allocation for 1988/89.

The PBC allocated NIS 2,227,000 for the development of computing infrastructure and university computing centers in 1990/91.

7.1.2 Super-Computers

In 1987/88 a PBC sub-committee that examined the subject of super-computers presented its report, which was adopted by the PBC. The report recommended that three or four mini-super-computers be installed on a gradual and coordinated basis in university computing centers and that researchers from other institutions should have access to these computers. The committee also recommended that a steering committee for super-computers be appointed.

During 1988/89 and 1989/90 three institutions purchased Convex C-220 mini-super-computers. The PBC undertook to allocate to the three institutions the NIS equivalent of $1,600,000, over a three-year period.
In 1990/91 the PBC approved the steering committee's recommendation to grant a one-time allocation to three additional institutions for the purchase of heavy numerical computing equipment. Total PBC allocations in 1990/91 amounted to NIS 3,346,000.

Toward the end of 1990/91 the steering committee presented a report that summarized its activities and recommendations and its conclusion that in view of changes in the computing market during its existence, the committee has become superfluous. As a result, the committee recommended that it cease to operate. The PBC accepted this recommendation and thanked the committee for its work.

7.1.3 The Inter-University Computing Center (IUCC)

The Inter-University Computing Center, which was established at the initiative of the PBC at the end of the 1982/83 academic year, was registered as a "registered society" by seven universities in 1989/90. The institutions, members, authorities amd work procedures of the registered society were defined. The executive committee of the registered society was chosen, including a chairman; a director for the registered society was also chosen.

The purpose of the registered society is to deal with all matters concerning compucation (communication and computers) and to promote cooperation and mutual assistance between the member institutions in this field and between them and research institutions or other corporations interested in university teaching and research.

The aims of the IUCC were defined as follows:

1. Administration, operation and development of an inter-university communication network in Israel.

2. Administration, operation and development of the contact with academic and research communication networks abroad.

3. Representation of Israel in international forums that deal with academic communication networks.

4. Coordination of purchase and maintenance agreements (of hardware and software) and implementation of joint university purchases.

5. Coordination in the use of existing inter-university computer resources, hardware and software, including a policy for mutual charges for use.

6. Examining the requirements for computing power of the universities as a whole, and meeting these requirements.

7. Coordinating and encouraging inter-university cooperation in everything connected with policies on compucation and the management of computing centers and systems in general.

8. Coordination of activities connected with evaluation of software and hardware, methods of operation and management of computer resources, the development of data systems and training.

9. Coordination and regulation of the unique professional knowledge available in the system, for inter-institutional assistance.

10. Providing services to the members of the company, as set out by the executive committee.

In 1990/91 three "cyphernet" lines were operated, in addition to the five existing high-speed (64Kb) diginet lines. These lines are part of the national academic communication network ("ILAN"). This network connects university computers as well as those of other educational and research institutions. The national academic communication network is part of the European Academic and Research Network (EARN) and, through it, is connected to BITNET and other networks in the United States. "ILAN" is also part of the RIPE network in Europe and the INTERNET network in the United States.

In 1990/91 a high international line was installed for the communication network, in addition to the existing international line to the United States. The universities continued to coordinate their purchases and reached joint agreements with suppliers of computer equipment, hardware and software. The universities thus utilize the joint purchasing power of the IUCC to conserve their resources.

PBC allocations to the IUCC in 1990/91 amounted to NIS 1,053,000, including NIS 380,000 for the direct communications line to the United States.

The forum of university computing center directors continued to convene monthly in 1990/91. The forum discusses coordination between computing centers and makes recommendations to the executive committee of the IUCC registered society. The forum set up working groups in

different areas such as: communication, personal computers, data protection, and VM, UNIX and VMS operating systems.

7.2
University Libraries

The libraries of the institutions of higher education cooperate in the following areas:

The Inter-Library Loan Project, allowing users to order and borrow books from libraries in all the institutions;
The Union List of Serials in Israel, containing catalog data and the location of all periodicals in the libraries of the institutions of higher education and research institutes in Israel;
The Inter-University Library Network, which connects the university library computers and permits computerized cataloging, searches and loans in all university libraries and between them. The network is based on the "Aleph" program developed by the Hebrew University of Jerusalem and operates in a VAX-VMS environment.

The Steering Committee for the Inter-University Library Network, established in 1983/84, continued its activities in 1990/91. The committee directs the development policy of the "Aleph" program regarding computer software and hardware and the services provided by the "Aleph" staff to university libraries.

The directors of the university libraries meet several times a year to discuss the strengthening of cooperation between libraries, with a view to greater economy and efficiency.

The PBC promotes these activities by budgetary allocations.

In 1990/91 the PBC allocated NIS 590,000 for inter-library cooperation, of which NIS 330,000 was for inter-library loans and the Union List of Serials and NIS 260,000 was upon the recommendation of the "Aleph" network steering committee for the replacement of the computer in which all the joint data (the Union List of Periodicals and the MARC data file) is located and for maintenance of the computer and care of its data-files, the development of an algorithm for a union list of books, and for an experiment in inter-library loans utilizing Fax machines and computers.

7.3
The Institute for Desert Research at Sede Boker

In order to encourage the Institute's development as a national inter-university center for desert research, the PBC appointed an inter-institution academic committee to follow its activities. The committee's functions are to initiate and foster cooperation between the Institute, which is part of Ben-Gurion University of the Negev, and the institutions of higher education. This includes cooperation between researchers, national and international meetings on desert research, and courses in this subject for students of other universities.

The PBC contributes to the Institute's budget through its direct allocation to the ordinary budget of Ben-Gurion University of the Negev. Total participation in 1990/91 amounted to NIS 6,980,000.

7.4
The Ben-Gurion Research Center at Sede Boker

On June 2, 1982 the Council for Higher Education decided to approve the agreement between Ben-Gurion University of the Negev and the Ben-Gurion Heritage Research Institute regarding transfer of the Institute's teaching and research functions, within the framework of the Ben-Gurion Research Center, to the University. The Council instructed the PBC to implement this decision in all matters concerning plans for academic and physical development and budgeting of the Center.

The PBC carried out the directives of the Council and designated a special allocation for the Ben-Gurion Research Center at Sede Boker as part of its allocation to Ben-Gurion University of the Negev (similar to the arrangement regarding the Institute for Desert Research, which was also covered by the Ben-Gurion Heritage Law of 1976).

In March 1989 the PBC set up an inter-institution academic committee to follow the activities of the Center, similar to the inter-institution academic committee for the Institute for Desert Research.

The functions of the committee are to follow the Center's development plans and to guide their formulation and to initiate and establish frameworks for cooperation between the institutions of higher education and the Center, including research projects and joint research centers, meetings of

research teams, joint appointments for researchers, etc. The committee was requested to present annual progress reports to the PBC.

The PBC contributes to the Center's budget through its direct allocation to the ordinary budget of Ben-Gurion University of the Negev. Total participation in 1990/91 amounted to NIS 2,045,000.

7.5
The Inter-University Institute in Eilat

In 1983/84, in order to encourage inter-university cooperation in the operation of the Marine Biology Laboratory in Eilat, which is part of the Hebrew University of Jerusalem, the PBC designated the laboratory as an inter-university institute. The Institute is managed by an administrative committee appointed by the chairman of the PBC after consultation with the rector of the Hebrew University. University scientists serve as committee members. The committee's function is to determine the Institute's scientific programs, priorities for the Institute's work, and development trends. In addition, the committee determines the curriculum in oceanography, agendas for conferences, employment procedures for scientists at the Institute, and possibilities for cooperation between the Institute and universities and research institutes in Israel and abroad.

In 1990/91 the Institute held inter-university courses in which teachers and students from most of the institutions of higher education in Israel participated. Students from all universities were able to participate in courses organized by other universities. Extensive research activity was carried out at the Institute, by local researchers as well as by researchers from different universities.

The PBC transfers the Institute's budget, as a closed budget, to the Hebrew University of Jerusalem, which is responsible for operating the Institute and reporting on it.

The PBC's allocation to the Inter-University Institute in Eilat in 1990/91 was NIS 2,040,000.

7.6
The Israeli Academic Center in Cairo

The Israeli Academic Center in Cairo was established in 1981/82 by the institutions of higher education, the Israeli Oriental Society, and the Israel Academy of Sciences and Humanities following a cultural agreement between Israel and Egypt signed in May 1980. Its purpose is to promote academic and scientific cooperation between the two countries.

The PBC finances the Center, which is administered by the Israel Academy of Sciences and Humanities on behalf of the institutions of higher education in Israel. A council and an administration direct the activities of the Center. The council appoints the center's director. Prof. Joseph Ginat of the University of Haifa directed the Center in 1990/91.

The Center organizes seminars, lectures and meetings that are attended by Egyptian lecturers and students. The Center maintains an expanding library and gives advise to visitors, particularly in the field of Judaica.

Of special note is the Center's assistance in the project for a library of synagogues and the documentation of the Jewish heritage in Cairo, which was completed this year. The library was inaugurated in January 1989 in its permanent location in the "Shaar HaShamayim" Synagogue in Cairo. Upon completion of this project, consideration is being given to a similar project for the synagogues of Alexandria as well as assistance for the establishment of a Jewish museum in Cairo.

Researchers, writers and students from Israeli universities visit the Center for research purposes or to give lectures at the Center. The Center publishes a bulletin in English and in Arabic.

The PBC's allocation to the Israeli Academic Center in Cairo in 1990/91 was NIS 660,000.

7.7
Data and Guidance System for Students

A computerized data system for candidates for admission to the institutions of higher education has been developed by the Committee of Heads of Universities' National Center for Testing and Evaluation. Development of the system was financed and encouraged by the PBC.

The system is designed to assist candidates for admission to the universities to chose fields and places of undergraduate study. The system, which is called "Meida`at" in Hebrew, provides personal replies to each candidate on the probability that he or she will be admitted to a desired field for undergraduate study. The replies are based on the personal data supplied by the candidate (the weighted average of the applicant's matriculation marks and his or her score on the psychometric entrance examination) compared with those of students who were admitted to the institution and field in question in recent years.

In addition, the system provides general information on a wide scope of subjects: procedures for admission, student dormitories, preparatory courses, financial assistance, psychometric and other classifying examinations, academic reserves, improvment of matriculation marks, pre-academic preparatory courses, counselling and guidance services, etc. The system also provides information on the structure and course of studies, as well as curricula, etc.

The system is operated on a personal computer and is user-friendly; it carries out a "conversation" with the candidate. Even someone who has no previous experience with computers can take part in this "conversation" without outside assistance. Candidates are not required to identify themselves.

In 1990/91 the PBC allocated NIS 43,000 for the development of the data and guidance system for students.

8

STUDENT SUPPORT

8.1
Tutorial Project ("Perach")

The tutorial project is a joint project of the Ministry of Education and Culture, the PBC, the universities and the National Union of Students. Students volunteering to devote four hours a week to acting as tutors to school pupils are eligible for yearly scholarships which, in 1990/91, amounted to a basic level of NIS 1,880.

In 1990/91 12,309 students served as tutors, including tutors who served only part of the year. The numbers of students serving as tutors from 1979/80 - 1990/91 appear below:

Tutors in Universities 1979/80 - 1990/91

	79/80	84/85	85/86	86/87	87/88	88/89	89/90	90/91
Total	4,030	12,072	13,213	10,924	10,192	10,555	11,725	12,309
Hebrew Univ.	500	1,914	1,924	1,751	1,511	1,357	1,703	2,839
Faculty of Agriculture*	140	702	712	828	819	937	1,027	1,013
Technion-IIT	320	2,004	2,281	1,768	1,644	1,560	1,629	1,869
Tel-Aviv Univ.	300	1,737	2,293	1,419	1,193	1,282	1,573	1,439
Bar-Ilan Univ.	700	1,599	1,585	1,161	1,143	1,268	1,357	1,519
Univ. of Haifa	650	1,822	2,000	1,775	1,774	2,082	2,296	1,508
Ben-Gurion U.	1,350	2,234	2,358	2,173	2,058	2,042	2,115	2,110
Weizmann Inst. of Science	70	60	60	50	50	27	25	25

* The Faculty of Agriculture in Rehovot, while part of the Hebrew University of Jerusalem, is considered separately from the Hebrew University for this purpose.

In 1990/91 project tutors operated eight tutorial centers in seven universities and one regional college. They were active in 389 schools located in 127 different communities, as set out below:

Tutorial Project Activity - 1990/91

	Coordi-nators	Schools	Commu-nities	Tutors
Total	292	389	127	12,309
Hebrew University - Total	70	91	19	2,839
Faculty of Agriculture	(27)	(46)	(11)	(1,013)
Technion-IIT	41	56	17	1,869
Tel-Aviv University	37	29	10	1,439
Bar-Ilan University	33	59	23	1,519
University of Haifa	56	96	45	2,508
Ben-Gurion University	55	58	13	2,110
Weizmann Inst. of Science	1	5	1	25

Source: Tutorial Project Administration

The main expenditure of the tutorial project is on scholarships. In 1990/91 the PBC financed about 82% of the scholarships. The remainder are financed by the universities, the Ministry of Education and Culture and other sources.

In 1990/91 the PBC's allocation to the tutorial project was approximately NIS 17.5 million.

The administration of the tutorial project is located in the Weizmann Institute of Science, which provides assistance for the project. A council, appointed by the Minister of Education and Culture, and an administration direct the project. The Ministry of Education and Culture also covers administrative expenses and selects the schools and pupils participating in the project.

8.2
Student Loans

The Students Loan Fund in the Institutions of Higher Education, in which commercial banks were partners, ceased to function in 1984/85. Since 1985/86 the system for loans to students has been financed from the PBC budget. The system is administered by a committee headed by the PBC and with the participation of representatives of the Ministry of Education and Culture and the Accountant General of the Ministry of Finance.

The PBC has adopted the criteria for eligibility for loans that were recommended by the "Katzav Committee". These include: the economic situation of the student's parents, the student's income, the number of family members in the student's home, army service, marital status, and place of residence (i.e., if in a development area). These criteria were also adopted by the public committee that determined the level of tuition fees for the years 1991/92 - 1996/97.

Loans are approved by the department for tuition fees and student loans in the Ministry of Education and Culture and are implemented by commercial banks. Following the 9% increase in tuition fees that took effect in 1989/90, the PBC decided to implement the following improvements in the award of student loans and grants:

- The basis for computing loans will be raised by 9%;
- The maximum level of loans will be raised to 100% of tuition fees;
- The standing loans (available to students from development areas) will be replaced by grants.

Conditions for loans have not changed and they continue to be interest-free but linked to the consumer-price-index.

During the 1990/91 academic year 7,118 students applied for loans, of whom 5,985 were found eligible. 1,140 loans were in fact implemented, as well as 3,207 grants.

9

OTHER ACTIVITIES AND ALLOCATIONS

9.1
Foreign Students

The Steering Committee for Foreign Students is composed of representatives of the universities and the Jewish Agency and is headed by a member of the PBC. The Jewish Agency finances the budget of the committee.

The functions of the committee are:
a. to determine policy and guidelines for operating programs aimed at increasing the number of Jewish students from abroad in Israeli universities;
b. to allocate the budget for these programs.

The committee's activities include the following:
* **scholarships for students** - Scholarships for undergraduate students and students in special programs are based on the student's socio-economic background; scholarships for graduate students are based on academic excellence.

* **recruitment of students abroad** - The committee supports the recruitment efforts of the universities and Jewish student organizations abroad. Most of the activity is centered in North America but in recent years greater efforts have been made to recruit students from Latin America, South Africa and Europe.

* **academic development in the universities** - The choice of courses offered to foreign students is being expanded in order to suit the courses to the plans and needs of these students, who usually come for short periods of time.

* **social and cultural activities** - These are intended to enable the students to become acquainted with Israeli people, the land, the State and society.

The budget of the Steering Committee in 1990/91 was $202,000.

In 1990/91 there were 1,521 foreign students in undergraduate degree programs or special programs (either for one year or one semester) and 170 foreign students in graduate programs. It must be stressed that these numbers do not include new immigrant students from the former Soviet Union and other former eastern bloc countries.

Undergraduate Students from North America in One-Year or One-Semester Programs

	84/85	85/86	86/87	87/88	88/89	89/90	90/91
Total	1,159	1,280	1,434	1,723	1,837	1,895	1,521
Hebrew University	608	730	820	936	848	896	124
Technion	-	-	-	7	9	11	1
Tel-Aviv Univ.	306	329	375	384	550	537	306
Bar-Ilan Univ.	83	63	93	95	89	104	177
Univ. of Haifa	108	105	105	122	121	170	79
Ben-Gurion Univ. of the Negev	54	53	41	66	67	42	23
Bezalel - Academy of Art & Design	-	-	-	-	1	-	-
Jerusalem College of Technology	-	-	-	2	2	7	3
Shenkar - College of Textile Tech. & Fashion	-	-	-	-	1	-	-
Michlala - Jerusalem Col. for Women	-	-	-	110	120	116	107
Wingate Institute	-	-	-	1	3	-	-
David Yellin Col.	-	-	-	-	-	-	1

Source: The Steering Committee for Foreign Students

Graduate Students Receiving Scholarships from the Steering Committee for Foreign Students

	1987/88		1988/89		1989/90		1990/91	
	2nd Deg.	Ph.D.	2nd Deg.	Ph.D.	2nd Deg.	Ph.D.	2nd Deg.	Ph.D.
Total	133	63	118	71	169	64	96	74
Hebrew Univ.*	79	23	52	30	89	27	42	21
Technion	25	1	28	8	26	8	9	8
Tel-Aviv Univ.	16	9	16	9	26	9	25	19
Bar-Ilan Univ.	-	2	-	1	-	1	4	6
Ben-Gurion U.	-	-	2	1	-	6	3	-
Univ. of Haifa	10	-	3	1	6	1	-	-
Weizmann Institute**	3	28	17	21	22	19	13	20

* Each year the Hebrew University awards an additional 10 scholarships for doctoral students.

** Each year the Weizmann Institute awards an additional 44 scholarships for master's degree students and 50 for doctoral students.

Source: The Steering Committee for Foreign Students

9.2
Regional Colleges

The regional colleges, which are centers for cultural and instructional activity in areas far from the center of the country, provide academic programs of study for which universities, including the Open University, are responsible academically. The academic responsibility is extended to these programs in order to make higher education more accessible to broader segments of the population and is expressed in the following ways:

* the teaching staff is part of the university staff;
* the program of study is determined by the university;
* requirements for admission are determined by the university;
* study programs are similar to those of the university in the same fields;
* degrees are awarded by the university after students complete their studies there.

Academic programs in regional colleges enable residents of areas that are distant from university campuses to accumulate credit toward an academic degree. The first two years of academic study may be undertaken in a regional college while the third and final year of study leading to a bachelor's degree must be completed at the main university campus. Open University programs enable students to complete all their studies in the regional college.

"Combined Programs" were opened in the Tel-Hai, Emek Yezrael and Western Galilee regional colleges beginning in the 1990/91 academic year. These are academic programs run jointly by the University of Haifa and the Open University. They are open to all holders of a matriculation certificate, resident in the region or elsewhere.

The Ministry of Education and Culture, local authorities and other sources finance the operating expenses of the colleges, while the PBC participates in the financing of the academic coordinator's salary and the overhead expenses of the academic programs. The PBC's allocation is transferred directly to the universities concerned, whereas other financing is transferred to the colleges.

The PBC's allocation to academic programs in regional colleges in 1990/91 amounted to NIS 1,546,400. The apportionment of this allocation is decided upon by the Council for Higher Education's sub-committee for regional colleges.

A list of the regional colleges where academic programs were held in 1990/91 can be found on page 18.

9.3
Pre-Academic Preparatory Programs

There are three different types of pre-academic preparatory programs: pre-academic programs in universities; pre-pedagogic programs in teacher training institutions; and programs for the completion of secondary school studies held in regional colleges.

The aim of the pre-academic preparatory programs is to give a "second chance" to young people who lack the matriculation certificate or whose secondary school grades were low and to prepare them for university admission.

Students in the pre-academic preparatory programs come from two different population groups: those who are defined by certain socio-economic criteria as "worthy of advancement" and those who need to refresh their knowledge or complete some of their studies.

The "Association for the Advancement of Education", which is connected with the Ministry of Education and Culture, is responsible for running the programs. The Association maintains regular contact with the PBC, the Ministry of Education and Culture, and the Ministry of Defense. The "Demobilized Soldiers Law" of 1984 gave greater impetus to the programs, which was reflected in a large increase in the number of students in the pre-academic preparatory programs, primarily in the regional colleges but also in the universities.

The PBC covers tuition costs for students from disadvantaged socio-economic backgrounds who are considered "worthy of advancement", while the Ministry of Education and Culture and the Ministry of Defense cover their living expenses.

The PBC's allocation in 1990/91 was NIS 4,791,000.

Students who are not in the "worthy of advancement" category, about a third of the students in the university preparatory programs, must pay tuition fees.

The following table shows the number of students in the pre-academic preparatory programs from 1988/89 - 1990/91.

Students in Pre-Academic Preparatory Programs
(At the Beginning of the 1990/91 Academic Year)

	Total Students	Considered "Worthy of Advancement"
1988/89 - Total	4,899	3,311 - 68%
At the universities (Total)	2,309	1,122 - 49%
Hebrew University	388	231
Technion-IIT	547	108
Tel-Aviv University	394	195
Bar-Ilan University	125	118
University of Haifa	530	245
Ben-Gurion University	325	225
At regional colleges	1,910	1,672 - 88%
At teacher training colleges	680	517 - 76%
1989/90 - Total	5,986	4,309 - 72%
At the universities (Total)	2,773	1,359 - 49%
Hebrew University	378	245
Technion	671	165
Tel-Aviv University	434	222
Bar-Ilan University	322	276
University of Haifa	549	277
Ben-Gurion University	419	174
At regional colleges	2,272	2,200 - 97%
At teacher training colleges	941	750 - 80%
1990/91 - Total	6,612	4,181 - 63%
At the universities (Total)	3,055*	1,558*- 37%
Hebrew University	469	269
Technion-IIT	682	152
Tel-Aviv University	391	204
Bar-Ilan University	629	511
University of Haifa	431	193
Ben-Gurion University	423	208
At regional colleges	2,248	1,521 - 68%
At teacher training colleges	1,309	1,102 - 84%

* Includes students at Jerusalem College of Technology.

Source: The Association for the Advancement of Education

9.4
The Special Program in Electronics at Tel-Aviv University

This program for the retraining of practical (non-academic) engineers as electronics engineers opened in 1985/86 with approximately 100 students. In the beginning of the 80's a shortage of electronics engineers was forecast which, it was feared, might impede the development of Israel's electronics industry. This course was planned as an immediate short-term solution to the problem and was to retrain hundreds of students each year, for several years. However, in 1988/89 there were only 103 students in the program.

In view of the growing discrepancy between forecasted and actual demand for the course it was decided in 1988/89 to close the program. 1989/90 was therefore the last year in which new students were admitted to the program and at the end of the 1990/91 academic year the program will cease entirely.

The PBC allocated NIS 2,407,500 to the program in 1990/91, as a special transfer to Tel-Aviv University.

9.5
Peripheral Hospitals

The PBC held discussions on this subject with officials of the Ministry of Health, the directors of peripheral hospitals (i.e., distant from schools of medicine), and the deans of the schools of medicine in order to strengthen the connections between the peripheral hospitals and the schools of medicine.

In December 1989 an agreement was reached between the Ministry of Health, the General Health Fund and the PBC. This agreement determined the number of positions and the cost outline for this program for the years 1987/88, 1988/89 and 1989/90. The cost of the program is divided evenly between the three signatories to the agreement. The program covers the cost of approximately 25 academic appointments in the schools of medicine for doctors from peripheral hospitals (14.5 at the Technion in Haifa and 9 at Ben-Gurion University of the Negev).

In order to qualify for financing, the schools of medicine must show that they need the instructional capabilities of doctors from the peripheral hospitals and that the level of equipment found in the departments of hospitals that will serve as teaching departments will be raised.

10

THE PBC AND THE GOVERNMENT AND THE KNESSET

10.1
The Government and Government Ministries

During the year the Chairman of the PBC met with Government ministers to discuss the problems facing higher education.

10.1.1 Ministry of Education and Culture

The Minister of Education and Culture is ex-officio Chairman of the Council for Higher Education and as such closely follows the work of the PBC and represents the interests of higher education in the Government.

The PBC administration maintains working contact with various departments of the Ministry of Education and Culture on such issues as the academic training of teaching personnel, academic programs in regional colleges, pre-academic preparatory programs and the recognition of foreign academic degrees.

10.1.2 The Ministry of Finance

The PBC maintains close contact with the Ministry of Finance - the Minister, the Director-General, the Budget Department, the Accountant-General's Department, and the official in charge of wages. In 1990/91 discussions centered on the following:

* continued implementation of the long-term plan for the development of the higher education system;
* the current budget of the higher education system, including budgets for the absorption of immigration;
* wage agreements in the public sector (including those of the academic staff).

10.1.3 The Ministry of Health

Discussions with the Minister of Health and officials of the Ministry centered on subjects common to the health and higher education systems:

* academic appointments to schools of medicine for doctors in peripheral hospitals;

* the supply of and demand for academic study in medicine and para-medical professions.

10.1.4 The Ministry of Economy and Planning

The Chairman and one member of the PBC serve as members of the "Council for National and Economic Planning". This Council was established as part of the Government's reorganization program in this field and was requested to prepare for the Government - in coordination with others involved in planning in government, the economy and in higher education - recommendations for medium and long-term policy in various fields.

10.1.5 The Ministry of Science and Technology

In 1990/91 contacts and exchanges of opinion with the Minister of Science and Technology centered on the National Council for Research and Development and the absorption of new immigrant scientists, as well as other subjects that require periodic coordination between the two offices.

10.1.6 The Ministry of Justice

Discussions with the Minister of Justice in 1990/91 centered mainly on the many legislative proposals concerning higher education that were initiated during the year.

The Attorney-General advises the Council of Higher Education on matters affecting the the Council for Higher Education Law.

10.1.7 The Ministry of Immigrants Absorption

Discussions with representatives of the Ministry in 1990/91 centered mainly on plans for the absorption of new immigrant students in the universities (the wave of immigration) and the absorption of new immigrant scientists. Discussions were also held on programs of assistance for foreign students in view of the wave of immigration.

10.1.8 The Ministry of Commerce and Industry

The PBC maintains regular contact with the Chief Scientist of the Ministry of Commerce and Industry regarding applied research in the universities and the promotion of subjects in his sphere of activities.

10.1.9 The State Comptrollers Office

The State Comptroller reviews the activities of the PBC and the Council as well as those of the institutions of higher education. In 1990/91 the Comptroller examined in detail the PBC's earmarked allocations and the budgets of the universities.

10.2 The Knesset and its Committees

10.2.1 Annual Ceremony for Outstanding Students Held by the Speaker of the Knesset

During Shavuot (the Feast of Weeks holiday) the Speaker of the Knesset holds an annual ceremony for outstanding students from all the universities. This ceremony serves as an opportunity for students, teachers and parents to meet and brings the achievements of the higher education system to the attention of the Knesset. The Chairman of the PBC and the heads of the universities took part in the ceremony this year.

10.2.2 The Education and Culture Committee

The Committee occasionally discusses issues connected with the higher education system. Representatives of the PBC are invited to these meetings.

In 1990/91 the Committee discussed the following: tuition fees in the institutions of higher education; the absorption of immigration in the institutions of higher education; the opening of private law schools; institutions not supported by the State budget; senior staff salaries in the universities; the absorption of new immigrant scientists; the expansion of the higher education system, particularly at the bachelor's degree level; programs for practical engineers, leading to the B. Tech. degree ("Bachelor of Technology"); and proposals for the amendment of the engineers and architects law (the registration of graduates of institutions of higher education in the Registry of Engineers and Architects).

10.2.3 The Finance Committee

The Committee approved the higher education budget.

10.2.4 The Constitution, Law and Justice Committee

During 1990/91 the Committee discussed the proposed amendments to the Bar Association Law. The Minister of Education and Culture, who is ex-officio chairman of the Council for Higher Education, and representatives of the PBC and the universities were invited to a partial debate on the subject of "the special difficulties involved in studying law in Israel".

10.2.5 The Immigration and Absorption Committee

The Committee occasionally discusses subjects that are relevant to the higher education system; representatives of the PBC are invited to these sessions. In 1990/91 the Committee discussed the "brain drain", the emigration of scientists and students, and preparations for absorbing the wave of immigration from the Soviet Union.

10.2.6 The Labor and Welfare Committee

This Committee also discusses subjects that are relevant to the higher education system and representatives of the PBC are invited to these sessions. In 1990/91 the Committee discussed the "brain drain" and the proposed amendment to the "Engineers and Architects Law".

APPENDICES

Appendix 1

Members of the Seventh Council for Higher Education (1990/91)

Mr. Zevulun Hammer	Minister of Education and Culture - Chairman
Justice Mr. Moshe Landau	Deputy Chairman of the Council
Prof. Harold Basch	Bar-Ilan University
Prof. Avraham Blaugrund	Weizmann Institute of Science
Prof. Gavriel Cohen	Tel-Aviv University
Mr. Eliyahu de-Castro	Representative of the Public
Dr. Meir Dvir	Representative of the Public
Prof. Yehuda Gutman	The Hebrew University of Jerusalem
Prof. David Horn	Tel-Aviv University
Prof. Elazar Kochva	Tel-Aviv University
Mr. Aharon Langerman	Representative of the Public
Prof. Hava Lazarus-Yafeh	The Hebrew University of Jerusalem
Prof. Chava Lifshitz	The Hebrew University of Jerusalem
Prof. Arie Melnik	University of Haifa
Prof. Shimon Moses	Ben-Gurion University of the Negev
Prof. Mordecai Nisan	The Hebrew University of Jerusalem
Prof. Eliahu Nissim	The Technion - IIT
Prof. Amnon Pazy	Chairman of the PBC
Dr. Israel Peled	Representative of the Public
Prof. Yaakov Rand	Bar-Ilan University
Prof. Aviezer Ravitzky [1]	The Hebrew University of Jerusalem
Prof. Michael Rubinovitch	Bar-Ilan University
Prof. Arnon Shani	Ben-Gurion University of the Negev
Mr. Yossi Shturm	Chairman, Natl. Union of Students
Mr. Danny Tzur	Representative of the Public
Prof. Ada Zamir	Weizmann Institute of Science

[1] Standing in for Prof. Hava Lazarus-Yafeh, who is on sabbatical.

Appendix 2

Fields of Study in the Institutions of Higher Education

Fields / Institutions	Humanities	Social Sci.	Law	Arts	Social Work	Teacher Train.	Math., Nat. Sci.	Eng., Technology	Agricult.	Medicine	Dentistry	Para-Med. Profs.
Hebrew University	+	+	+	+	+	+	+		+	+	+	+
Technion-IIT		+				+	+	+	+	+		+
Tel-Aviv University	+	+	+	+	+	+	+	+		+	+	+
Bar-Ilan University	+	+	+	+	+	+	+					
University of Haifa	+	+	+	+	+	+	+					+
Ben-Gurion University	+	+			+	+	+	+		+		+
Weizmann Inst. Science							+					
The Open University	+	+					+					
Bezalel Academy Arts				+								
Jerusalem Acad. Music				+		+						
Jerusalem Coll. Technol.						+		+				
Shenkar - Text. & Fash.				+				+				
Ruppin Institute		+										
College of Management		+										
Teacher Training Colleges						+		+				

Appendix 3

Students in Universities[1] 1969/70 - 1990/91 by University and Degree Level

	1969/70	1979/80	1984/85	1989/90	1990/1991 Total	Bachelor's Degree	Master's Degree	Ph.D.	Certificate (3)
Total (2)	35,374	54,480	61,155	67,770	71,190	48,750	17,140	4,360	940
Hebrew University, Jlm.	12,588	13,570	14,385	16,780	17,700	10,960	4,890	1,660	190
Technion-IIT	6,045	7,580	8,060	9,080	9,770	7,060	2,070	580	60
Tel-Aviv University	7,958	14,380	18,020	19,270	19,440	12,630	5,650	940	220
Bar-Ilan University	4,273	8,070	8,780	9,330	10,200	7,450	2,070	430	250
University of Haifa	2,794	6,140	6,330	6,780	7,030	5,570	1,190	110	160
Ben-Gurion University of the Negev	1,297	4,250	5,080	5,890	6,410	5,080	1,080	190	60
Weizmann Institute of Science	419	490	500	640	640	-	190	450	-
Percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hebrew University, Jlm.	35.6	24.9	23.5	24.8	24.9	22.5	28.5	38.1	20.2
Technion-IIT	17.1	13.9	13.2	13.4	13.7	14.5	12.1	13.3	6.4
Tel-Aviv University	22.5	26.4	29.5	28.4	27.3	25.9	33.0	21.6	23.4
Bar-Ilan University	12.1	14.8	14.4	13.8	14.3	15.3	12.1	9.9	26.6
University of Haifa	7.9	11.3	10.3	10.0	9.9	11.4	6.9	2.5	17.0
Ben-Gurion University of the Negev	3.6	7.8	8.3	8.7	9.0	10.4	6.3	4.4	6.4
Weizmann Institute of Science	1.2	0.9	0.8	0.9	0.9	-	1.1	10.3	-

(1) Does not include the Open University. (See Appendix 5)

(2) Does not include students in special non-degree courses.

(3) Students who study for both a degree and a certificate are counted with the degree students.

Source: Central Bureau of Statistics

Appendix 4

Recipients of Degrees from Universities[1] - 1969/70 - 1989/90
I By Institution and Degree Level

	69/70	79/80	1988/89	1989/90				
				Total	Bach. Deg.	Mast. Deg. (3)	Ph.D.	Cert. (2)
Total	5,566	9,371	13,214	13,915	10,192	2,790	450	483
Hebrew Univ.	2,622	2,396	3,313	3,593	2,412	909	133	139
Technion-IIT	1,032	1,347	1,784	1,816	1,313	403	86	14
Tel-Aviv Univ.	1,302	2,452	3,995	4,035	2,940	877	100	118
Bar-Ilan Univ.	423	1,265	1,616	1,621	1,266	236	31	88
Univ. of Haifa	187	1,015	1,246	1,400	1,160	133	2	105
Ben-Gurion Univ.	23	775	1,144	1,308	1,101	165	23	19
Weizmann Inst.	76	121	146	142	-	67	75	-
Percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hebrew Univ.	47.1	25.6	25.1	25.8	23.7	32.6	29.6	28.8
Technion-IIT	18.5	14.4	13.5	13.1	12.9	14.4	19.1	2.9
Tel-Aviv Univ.	21.6	26.1	30.3	29.0	28.8	31.4	22.2	24.4
Bar-Ilan Univ.	7.6	13.5	12.2	11.6	12.4	8.5	6.9	18.2
Univ. of Haifa	3.4	10.8	9.4	10.1	11.4	4.8	0.4	21.7
Ben-Gurion Univ.	0.4	8.3	8.4	9.4	10.8	5.9	5.1	3.9
Weizmann Inst.	1.4	1.3	1.1	1.0	-	2.4	16.7	-

(1) Does not include the Open University. (See Appendix 5)
(2) Recipients of both a degree and a certificate are counted with recipients of degrees.
(3) Recipients of the degree "Doctor of Medicine" are counted with recipients of master's degrees.

Source: Central Bureau of Statistics

Recipients of Degrees from Universities[1] - 1979/80 - 1989/90

II By Field of Study and Degree Level

	79/80	84/85	1988/89	1989/90				
				Total	Bach. Deg.	Mast. Deg. (3)	Ph.D.	Cert. (2)
Total	9,371	11,218	13,214	13,915	10,192	2,790	450	483
Humanities & Jewish Studies	2,741	3,312	3,466	3,523	2,546	464	74	448
Social Sciences	2,808	2,879	3,733	4,110	3,128	931	33	18
Law	301	505	469	464	455	16	3	-
Medicine & Related Fields	459	822	1,098	1,208	745	432	31	-
Natural Sciences & Mathematics	1,342	1,816	2,223	2,256	1,513	507	233	3
Agriculture	231	399	290	306	166	122	18	-
Engineering & Architecture	1,489	1,485	1,935	2,039	1,639	328	58	14
Percentages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Humanities & Jewish Studies	29.2	29.5	26.2	25.4	25.0	16.6	16.4	92.8
Social Sciences	30.0	25.7	28.3	29.5	30.7	33.4	7.3	3.7
Law	3.2	4.5	3.5	3.3	4.5	0.2	0.7	-
Medicine & Related Fields	4.9	7.3	8.3	8.7	7.3	15.5	6.9	-
Natural Sciences & Mathematics	14.3	16.2	16.8	16.2	14.8	18.2	51.8	0.6
Agriculture	2.5	3.6	2.2	2.2	1.6	4.4	4.0	-
Engineering & Architecture	15.9	13.2	14.7	14.7	16.1	11.8	12.9	-

(1) Does not include the Open University. (See Appendix 5)
(2) Recipients of both a degree and a certificate are counted with recipients of degrees.
(3) Recipients of the degree "Doctor of Medicine" are counted with recipients of master's degrees.

Source: Central Bureau of Statistics

Appendix 5

The Open University
Registration in Academic Courses and Graduates
By Year and Field of Study - 1984/85 - 1990/91

	Registration in Academic Courses		
	Total	Humanities & Social Sciences	Natural Sciences & Mathematics
1984/85	12,034	8,166	3,868
1985/86	11,914	8,139	3,775
1986/87	13,506	7,969	5,535
1987/88	10,853	7,507	3,346
1988/89	11,872	8,560	3,312
1989/90	13,007	9,645	3,362
1990/91	15,761	12,334	3,427

	Graduates		
	Total	Humanities & Social Sciences	Natural Sciences & Mathematics
1984/85	101	73	28
1985/86	132	102	30
1986/87	227	180	47
1987/88	194	168	26
1988/89	281	243	38
1989/90	304	270	34
1990/91	-	-	-

Source: Central Bureau of Statistics

Appendix 6

Students in Non-University Institutions of Higher Education[1] - 1983/84 - 1990/91

	83/84	84/85	87/88	88/89	89/90	90/91
Total	1,621	1,848	1,945	1,915	1,876	1,904
Bezalel - Academy of Arts and Design, Jerusalem	616	633	628	654	640	644
Jerusalem Rubin Academy of Music and Dance	305	392	390	388	386	422
Jerusalem College of Technology	215	280	343	311	287	305
Shenkar - College of Textile Technology and Fashion	308	324	359	359	350	344
Ruppin Institute - Academic course	177	219	225	203	213	189

(1) Does not include institutions of higher education that are not funded by the PBC - such as teacher training colleges and the College of Management - Academic Course, Tel-Aviv

Source: Central Bureau of Statistics

Appendix 7

Recipients of Degrees From Non-University Institutions of Higher Education[1] - 1983/84 - 1990/91

	83/84	84/85	87/88	88/89	89/90	90/91
Total	335	318	334	372	345	366
Bezalel - Academy of Arts & Design, Jerusalem	134	104	105	135	99	127
Jerusalem Rubin Academy of Music and Dance	44	37	46	64	57	46
Jerusalem College of Technology	19	65	51	68	84	61
Shenkar - College of Textile Technology and Fashion	86	62	66	44	56	78
Ruppin Insitute - academic course	52	50	66	61	49	54

(1) Does not include students in institutions that are not funded by the PBC (teacher training colleges and the College of Management - Academic Course, Tel Aviv).

Source: Central Bureau of Statistics

Appendix 8

Active University Staffs[1]

I Annual Averages 1984/85 - 1990/91, By Budgetary Source

		All Budgets				Total Employees Financed from Ordinary Budget	Total Employees Financed from Other Budgets
		Total Employees	Total Teaching & Research Staff	Total Technical Staff	Total Administrative Staff		
All Universities	- 1984/85	17,792	7,912	3,321	6,559	14,210	3,582
	1988/89	17,115	7,575	3,531	6,009	13,596	3,518
	1989/90	16,633	7,267	3,527	5,839	13,255	3,378
	1990/91	16,913	7,583	3,512	5,818	13,356	3,557
Hebrew University	- 1984/85	5,359	2,289	731	2,339	3,931	1,428
	1988/89	4,754	2,110	648	1,996	3,328	1,426
	1989/90	4,628	2,010	651	1,967	3,260	1,368
	1990/91	4,720	2,087	662	1,971	3,297	1,426
Technion (2)	- 1984/85	2,979	1,304	832	843	2,374	605
	1988/89	2,690	1,049	865	777	2,093	597
	1989/90	2,695	1,048	874	773	2,101	594
	1990/91	2,755	1,089	886	778	2,101	648
Tel-Aviv University	- 1984/85	3,978	2,176	436	1,366	3,352	626
	1988/89	4,021	2,142	644	1,235	3,542	479
	1989/90	3,891	1,989	668	1,234	3,389	503
	1990/91	3,929	2,040	608	1,221	3,384	545
Bar-Ilan University	- 1984/85	1,418	689	104	625	1,275	143
	1988/89	1,449	736	147	567	1,303	146
	1989/90	1,439	729	146	565	1,296	144
	1990/91	1,526	796	141	589	1,318	208
University of Haifa	- 1984/85	829	439	36	354	769	60
	1988/89	909	508	40	361	821	80
	1989/90	898	501	46	351	791	107
	1990/91	922	516	44	362	791	131
Ben-Gurion University of the Negev (3)	- 1984/85	1,508	626	326	556	1,162	346
	1988/89	1,614	666	347	601	1,230	384
	1989/90	1,490	650	324	516	1,189	301
	1990/91	1,504	692	315	497	1,265	239
Weizmann Institute of Science	- 1984/85	1,721	389	856	476	1,347	374
	1988/89	1,679	365	841	473	1,280	399
	1989/90	1,592	340	819	433	1,231	362
	1990/91	1,557	363	794	400	1,198	359

(1) Only active staff employed on a monthly basis. (Excluding fellowships, pensioners, daily or contractual basis, etc.)

(2) Includes the Technion Research and Development Authority.

(3) Includes the Research and Development Authority.

Source: Data supplied by the universities.

II Employees[1] in the Universities 1989/90 - 1990/91

	1989/90	1990/91	Difference	Difference(%)
Grand Total	16,632.9	16,913.3	280.4	1.7%
A. Teaching & Research Staff - Total	7,266.6	7,582.6	316.0	4.3%
1. Senior Academic Staff - Total	4,337.3	4,474.0	136.7	3.2%
Full Professor	1,115.2	1,181.6	66.4	6.0%
Associate Professor	1,091.9	1,126.9	35.0	3.2%
Senior Lecturer	1,265.9	1,300.1	34.2	2.7%
Lecturer	864.3	865.4	1.1	0.1%
2. Junior Academic Staff - Total	932.7	899.0	-33.7	-3.6%
Senior Instructor	102.8	105.6	2.8	2.7%
Instructor	431.9	375.2	-56.7	-13.1%
Assistant "B"	134.8	120.4	-14.4	-10.7%
Assistant "A"	263.2	297.8	34.6	13.1%
3. Research and Teaching Assistants	683.4	643.9	-39.5	-5.8%
4. Other Teaching and Research Staff	1,313.2	1,565.7	252.5	19.2%
Clinical Teachers	88.5	92.1	3.6	4.1%
Teachers	161.7	174.6	12.9	8.0%
External Teachers	914.0	1,027.9	113.9	12.5%
Others	149.0	271.1	122.1	82.0%
B. Technical Staff - Total	3,527.5	3,512.2	-15.3	-0.4%
1. Engineers	708.5	732.6	24.1	3.4%
2. Technicians	1,703.1	1,668.8	-34.3	-2.0%
3. Microbiologists & Laboratory Assistants	842.8	813.4	-29.4	-3.5%
4. Special Contract	238.4	235.3	-3.1	-1.3%
5. Others	34.7	62.1	27.4	78.8%
C. Administrative Staff - Total	5,838.8	5,818.5	-20.3	-0.3%
1. General Administation	4,007.1	3,928.8	-78.3	-2.0%
2. Humanities & Social Science Graduates	1,625.7	1,671.8	46.1	2.8%
3. Special Contract	88.4	109.0	20.6	23.3%
4. Other	45.7	35.8	-9.9	-21.6%
5. Apprentices	71.9	73.1	1.2	1.7%

(1) Full-time equivalents of all salaried employees.

Source: Data supplied by the universities.

Appendix 9

Staff in Non-University Institutions of Higher Education - 1984/85 - 1990/91
(Full-Time Positions)

		Total	Academic Staff	Administrative and Technical Staff
Bezalel, Academy of Arts & Design, Jerusalem	1984/85	150	72	78
	1985/86	147	71	76
	1986/87	148	76	72
	1987/88	136	66	70
	1988/89	145	73(1)	72
	1989/90	148	76	72
	1990/91	141	68	73
Jerusalem Rubin Academy of Music and Dance	1984/85	84	67	17
	1985/86	84	67	17
	1986/87	85	68	17
	1987/88	84	65	19
	1988/89	86	65	21
	1989/90	90	69	21
	1990/91	91	70	21
Jerusalem College of Technology	1984/85	86	46	40
	1985/86	91	45	46
	1986/87	102	49	53
	1987/88	99	46	53
	1988/89	92	44	48
	1989/90	90	44	46
	1990/91	91	44	47
Shenkar - College of Textile Technology and Fashion	1984/85	93	41	52
	1985/86	90	41	49
	1986/87	90	43	47
	1987/88	74	36	38
	1988/89	74	37	37
	1989/90	75	39	36
	1990/91	84	40	44

(1) Includes teaching assistants.

Source: Data supplied by the institutions.

Appendix 10

Built-up Areas in the Universities - 1990/91
(Gross Area in Square Meters)

	Total Area of Buildings (1)	Total Buildings for Teaching and Research						Services for Students & Staff (3)	Student Dormitories (4)
		Total	Joint Services (2)	Humanities & Social Sciences	Natural Sciences	Medicine	Technology		
All Universities - Total	1,431,900	1,088,600	175,300	293,700	333,400	122,300	163,900	84,900	258,400
Hebrew University (5)	465,000	310,000	50,000	102,000	108,000	50,000	-	40,000	115,000
Technion - IIT	300,500	230,100	34,300	-	36,700	30,000	129,100	15,100	55,300
Tel-Aviv University	250,000	216,300	15,500	85,300	61,600	34,400	19,500	8,000	25,700
Bar-Ilan University	106,200	79,800	25,900	37,000	16,900	-	-	7,600	18,800
University of Haifa	76,100	61,700 (6)	- (7)	61,700	- (7)	-	-	4,900	9,500
Ben-Gurion University of the Negev	130,400	96,700	38,600	7,700	27,200	7,900	15,300	5,600 (7)	28,100
Weizmann Institute	103,700	94,000	11,000	-	83,000	-	-	3,700 (8)	6,000

(1) Does not include underground areas for transportation, parking and pipes.

(2) Includes buildings such as: central library, central auditorium, administration, plant management, machine rooms, etc.

(3) Includes restaurants, sports installations, health and other services.

(4) Does not include staff housing, except for dormitories for participants in training programs.

(5) Does not include areas whose designated use is undergoing change.

(6) Includes areas not in use (reserves) or rented out.

(7) In addition there are areas included in other categories.

(8) Does not include housing for visiting staff members (9,600 sq. meters) and staff housing.